# NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

## Health Technology Appraisal

## Drug-eluting stents for the treatment of coronary heart disease

## Response to public comments on the ACD

| Consultee | Section | Comment | Response |
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| NHS Professional 1 | 1 | This is an astonishing recommendation, essentially severely flawed (and incorrect) and flies in the face of much of the world-wide evidence and of the effective policy in most of the Western world: Even the former NICE guidance was weak on DES in some situations (eg Diabetics). This must be reversed immediately | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 1 | 2 | The importance of restenosis and its risks (eg repeat revascularisation) while emphasised in 2:7 appear to be ignored in the overall appraisal, leading to the erroneous conclusion | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 1 | 3 | These are inappropriate DES prices to base the appraisal on: they are list prices, while on the large tenders now available, DES are available at approx 600 in many cases, massively increasing the already obvious cost benefit of DES treatment | The Institute has received data from PASA for 2007/08; see FAD section 3.6. |
| NHS Professional 1 | 4 | Comments already made: Restenosis and its risks have been inappropriately ignored, and costs have been used which are unrepresentative and play down the cost benefit of DES. Mortality is not really the appropriate factor here what stents have done is brought the evidential mortality risk following stenting down to comparable rates with CABG with less intervention and DES have reduced | Comments noted. DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | reoperation compared with bare metal stents, which is likely to reduce long-term morbidity further | |
| NHS Professional 1 | 5 | I do not believe that this guidance is possible to implement without major detriment to patients, a major increase in revascularisation rates (mostly re-revascularisation for restenosis) and long term a major increase in costs. It will reduce the top class British interventional cardiology service to third world levels if implemented | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 1 | 6 | Clearly more work and evidence is needed, but it would be totally inappropriate to institute this flawed guidance pending the further work being done | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 1 | 8 | The guidance should not be instituted at all, and perhaps the date planned of Jan 2011 should be the date to review the new evidence suggested above, and the guidance should revert to the existing guidance pending this. | The review date has been changed accordingly. |
| NHS Professional 2 | 1 | I completely disagree with this recommendation which is at variance with the published evidence and the clinical opinion of specialists and appears to have resulted from a poorly performed analysis of a single centre"s data. If this recommendation was implemeted it would damage the reputation of NICE irretreivably and would greatly harm patient care in the UK compared with other European countries. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 2 | 2 | There is no published evidence to my knowledge to support the use of clopidogrel after DES for greater than 6 months (3 months or 6 months duration were used in the trials). Why is NICE not using the data and relying on non-evidence based opinion? | See FAD sections 4.1.22 and 4.3.10. |
| NHS Professional 2 | 3 | The list prices for DES quoted are completely unrealistic and far higher than most NHS trusts are paying at present. As NICE is tasked with informing the UK health economy, surely the current NHS prices for the technology should be used. This must be readily avavilable from NHS Trusts. | The Institute has received data from PASA for 2007/08; see FAD section 3.6. |

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| NHS Professional 2 | 4 | The evidence suggests that DES are more effective than BMS in preventing repeat procedures. The whole issue is around cost. Cost effectiveness analyses in other countries have shown the technology to be cost effective. The Assessment group has produced a flawed analysis based upon a single centre audit of dubious validity , over estimation of the costs of DES relative to BMS and by adopting a non-evidence based length of clopidogrel treatment post DES. The cardiological community has no faith whatsoever in the Liverpool group"s analysis and a further report should be commissioned from an impartial group of health economists. Data should be supplied on the cost difference between DES and BMS that does make DES cost-effective. You should realise that if DES are withdrawn in the UK then no money will be saved as the cost of BMS will rise again (making DES suddenly cost effective!) and rates of the more expensive CABG will rise. | The Appraisal Committee does not consider the affordability, that is costs alone, of new technologies but rather their cost effectiveness in terms of how its advice may enable the more efficient use of available healthcare resources (NICE Guide to the Methods of Technology Appraisal, paragraphs 6.2.6.1 – 6.2.6.3).<br>DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sectionss 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 2 | 5 | This recommendation should not be implemented | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 2 | 6 | Reasonable | Comment noted. |

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| NHS Professional 2 | 8 | Far too long for such a contentious and important issue | The review date has been changed. |
| NHS Professional 3 | 3 | The prices stated in this section bear no resemblance to the consigment prices for DES in most NHS Trusts. In addition Taxus Liberte, Cypher Select, Xience and Endeavor are the most commonly used DES and inclusion of other DES does not reflect practice or intended practice. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 3 | 4 | The price premium of 600 is not correct and is significantly lower than this. I would like to know why the specific data provided by BCS and BCIS has been so comprehensively ignored. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 3 | 5 | Implementation of these guidelines will harm patient care and the effects are predictable. Firstly there will be effective private care with DES but ineffective NHS care with BMS. Secondly it will be inappropriate to perform left main PCI, complex PCI or bifurcation PCI with BMS and so the rate of CABG will rise. Thirdly the rate of repeat intervetions will rise dramatically. I hope that NICE have included in their model the additional staff and infrastructure for the extra PCI repeat procedures and CABG surgery that this policy would cause. The UK already has low coronary revascularisation rates and numbers of cardiologists per head of the population and such recommendations would reduce the UK NHS service to the level of 3rd world nations - behind developing countries such as India and Pakistan. Such recommendations will serve only to deliver low quality NHS treatment and lead to a boom in intervetional cardiology private practice in the UK. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 3 | 6 | The effects of removal of DES from NHS treatment on the number of private practice DES implantations in the UK. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 4 | 1 | I do not understand how it is valid to make this statement in the face of | DESs are recommended in |

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| | | multiple randomised clinical trials of DES showing clinical efficacy and cost efficiency in high risk patient groups (eg diabetics) and coronary artery lesion subsets (small vessels, long lesions). | circumstances outlined in FAD section 1.1. |
| NHS Professional 4 | 2 | This is an accurate summary, except for the comment in 2.7. Proliferation of smooth muscle cells in the arterial wall after stenting leads to intimal hyperplasia, not to "inflammation". | Comment noted. FAD section 2.7 has been changed accordingly. |
| NHS Professional 4 | 4 | Many of the assumptions in this calculation are derived from a single centre audit. It is uncertain how representative this audit is of the totality of UK practice. In particular, the calculations are highly dependent on the "price premium", which is extremely fluid between manufacturers and individual NHS trusts. How is it possible to recommend that DES are not used in any circumstances, when market conditions and DES/BMS costs are likely to change markedly in short time frames, which will dramatically alter the cost effectiveness analysis? | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 5 | 1 | This seems scientifically unsound, clinically blind and an irrational response to the overwhelming weight of published randomised controlled trial data. Implementation of this guidance will kill patients: those who currently can be effectively revascularised with drug eluting stents (particularly the elderly with complex disease, long lesions, diabetics, small vessels) will instead either end up with multiple procedures for instent restenosis if revascularised with bare metal stents, or be exposed to the higher mortality and morbidity of cardiac surgery. Many of the patients who currently I can safely revascularise with drug eluting stents are "surgical turn-downs", for whom angioplasty is their only hope. If this preliminary recommendation | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | becomes the final guidance, huge numbers of such patients will die or suffer substantial morbidity as a direct result. | |
| NHS Professional 5 | 2 | This section (2: Clinical need and practice) has missed out completely one of the major drivers behind the expansion of PCI, and requirement for DES technology to save lives, namely the rising tide of emergency admissions with "Acute Coronary Syndrome". Such patients have a high risk of signicant cardiovascular mortality and morbidity in the following few months after such an admission. Early (certainly within 72 hours) revascularisation of these patients with angioplasty reduces this mortality and morbidity risk substantially. These are among the lesions most at risk of re-stenosis, and these unstable patients will usually be turned down for CABG because of their instability. Hence, DES technology must be available to safely revascularise these patients. On a scientific note, 2.7 is very poorly written. Elastic recoil is NOT instent restenosis; and there is no mention of vessel dissection, which was one of the main resons for introducing safe stents and used to kill angioplasty patients. If you get these basic, medical student level things wrong, no surprise that the rest of your document is equally factually inaccurate. | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>With regard to ACS patients, see FAD sections 4.3.5, 4.3.10 and 4.3.13.<br><br>FAD section 2.7 has been changed accordingly. |
| NHS Professional 5 | 3 | These prices seem very different to what we are paying in the real world! Did the group who produced this recommendation get any real world data, or just read catalogues? This preliminary document already looks tired and rather out-of-date.... For information, at the NHS Trust where I work, we pay 590 for a TAXUS, 635 for an Endeavour; 140 for a Liberte and 150 for a driver. So our DES price premium is about 450. This is rather important information, and the credibility of this report is basically zero if you get the maths so laughably wrong. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 5 | 4 | I think the reliability of this analysis is wrong for 5 main reasons: | DESs are recommended in |

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| | | Firstly, your cost assumptions are wrong by 100"s per DES: my Trust pays only 450 more for a TAXUS DES than for the Liberte BMS. Secondly, you have dismissed collective purchasing. Huge progress is being made in SHA-wide negotiations to allow collective purchasing which will further drive down the premium. Thirdly, you have not factored in the lives that will be lost if DES are not available. There are many acute patients with long lesions who can be safely revascularised at low risk with DES, for whom the alternative will be either a high risk CABG or mutiple BMS with consequent high numbers of subsequent restenosis-driven procedures. Fourthly, in 4.3.11 you assume an ISR rate of 11%. The RCTs and BASKET/Scottish registry data) suggests this should be ~13%. Finally, you are unscientifcally elevating the Liverpool document above RCTs. Why place more credence on single centre, single country, non-randomised data than on all the international, randomised, multi-centre trials? To do so is unscientific, and then to make healthcare decisions for the nation of the basis of bad science is unethical. | circumstances outlined in FAD section 1.1.<br><br>The Committee did not accept all the parameters and assumptions in LRiGs model see FAD sectionss 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 5 | 5 | No comment | Comment noted. |
| NHS Professional 5 | 6 | I think the scientific data ahowing the clinical superiority of the first generation of DES in small vessels and long lesions is robust and unarguable. More work is needed on the newer DES. | Comment noted. |
| NHS Professional 5 | 7 | No comment | Comment noted. |
| NHS Professional 5 | 8 | Well... I would start by getting your facts right. | Comment noted. |
| NHS Professional 6 | 1 | DES should be recommended for long lesions and small vessels | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 6 | 3 | prices appear to be well out of date - need checking | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |

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| NHS Professional 6 | 4 | QALY data flawed as the prices are not correct therefore whole interpretation is flawed. | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 6 | 6 | agree that real world registry data is important. | Comment noted. |
| NHS Professional 7 | 1 | As a practicing interventional cardiologist with 25 years experience I am dismayed that this conclusion has been reached. Such guidance is not only profoundly out of step with other European countries, as well as North America, but also chooses to ignore the tangible clinical benefits that these devices have brought to thousands of patients. Repeat PCI procedures were all too common in the pre-stent era. The introduction of BMS usage resulted in a noticeable decrease in procedural risk and the need for further procedures, but in-stent restenosis (ISR) was well recognised and presented a therapeutic challenge. DES use has resulted in ISR becoming vanishingly rare and patients have benefitted as a result. If DES use is not recommended large numbers of patients will be denied PCI and thus undergo untimely or unnecessary CABG. This will have a major impact on current surgical services and leave a legacy of more complex disease requiring treatment when graft failure occurs predictably 10 years later. | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| NHS Professional 7 | 4 | The real cost of DES is falling; our unit can obtain these devices at around 600. I can only presume that this suggested guidance is designed to stimulate industry in order to drive down DES prices as raipdly as possible and thereby minimise the price premium. One has to question how NICE were able to produce its previous DES guidance at a time when these devices were more expensive. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 8 | 1 | I strongly believe that this guidance is wrong, and contradicts other worldwide guidance including recommendations from the AHA/ACC and European Society of Cardiology. To publish this guidance would be a backwards step and to the detriment of a huge number of patients. Repeat procedures will soar, and patients will suffer. This can be avoided by proper assessment of the current literature, proper cost assessment, and avoidance of heavy bias from a single centre audit. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 8 | 3 | The costs listed here do not reflect real life costs to hospitals, and due to the type of analysis performed, small differences in cost will make large differences in the cost benefit. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 8 | 4 | I believe that it is wrong to base national guidance so heavily on single centre audit data, which is by definition non representative of UK practise. This data flies in the face of international, multicentre RCTs and must therefore be treated with caution. Some of the figures used in the calculations seem to have no scientific basis (eg. BMS restenosis rate of 11%). The price premium used is ridiculous. The committee recognises the response from BCIS and BCS, but ignore it. The committee recognises the increase risk of small vessels and long lesions and exclude diabetics, and these are the particular subgroups who clearly from the evidence have most to gain. | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD |

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| | | | sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 9 | 2 | 2.5 I recommend a spearate section on acute coronary syndromes - ""PCI as part of a revascularisation strategy prevents death and myocardial infarction and re-admission"" this is relevant as over 60% of UK PCI is for ACS and if DES use is restricted more inpatneint CABG"s will be required resulting in longer waits in hospital and the attendant risks therein - hospital acquire infection reinfarction etc... | See FAD sections 4.2.22, 4.3.5, 4.3.10 and 4.3.13. |
| NHS Professional 9 | 3 | What is the value of publishing these prices?? we all pay less some of us less than others - it would be useful to show the list and the range of NHS prices - if the NHS could buy the stents centrally then we all may get a Taxus for 600 | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 9 | 4 | There is a lot of store put by this liverpool data - they obviously have a good database. What was the restenosis rate for bare metal stents in liverpool for Long lesions in small vessels in patients with diabetes. There is no mention of what the IFU"s actually say for each stent - i.e. Taxus - up to 64mm Endeavour up to 27mm ( I think) this would be useful as on and off label is a big issue. It is not explicit what the NICE recommendations will be based on the above report. It appears that DES are clinically effective and are being used widely. BMS is NOT the alternative to DES in a lot of cases the alternative would be CABG. Is ther any way of analysing the liverpool database to assess the cost of this if DES were deemed to costly, or discount DES prices accordingly in the analysis. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 10 | 1 | An outrageous and bizarre set of recommendations based on a set of flawed premises with regard to cost effectiveness and predicated on a nonpeer reviewed audit from one centre. You lose any authority that you had with the Cardiological community with these flatulent recommendations. I note not one interventional Cardiologist on your | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | assessment committee. DES are a major advance in therapy for coronary heart disease and to deny patients access to this is unethical and plain wrong. Go back and think again. | |
| NHS Professional 11 | 1 | Unbelievable. Throughout the world drug-eluting stents are used correctly for selected patients requiring coronary intervention. The patient groups that benefit most have been well established in randomised controlled clinical trials. Is NICE seriously going to ignore these data and make recommendations affecting clinical practice throughout the UK on the basis of a single fundamentally flawed audit study produced by a single UK centre? Is NICE seriously recommending that practice in the UK should be different from the best practice adopted in the rest of the world? It is reminiscent of the mother watching her son on the parade ground who complains that all the other soldiers were out of step with her son. This conclusion is fundamentally and obviously wrong. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 11 | 4 | Why did NICE select a group to perform the above flawed analysis who had already published a similar assessment? Why have the submissions of the British Cardiovascular Society and the British Cardiovascular Interventional Society pointing out the fundamental flaws in the analysis been ignored? This decision reeks of a process manipulated to produce a preordained conclusion. | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |

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| NHS Professional 12 | 1 | I am concerned about the recommendation that DES should not be used as this is at variance with established clinical practice and the evidence available. The evidence this recommendation is based on is from a single centre which does not reflect general UK practice. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 12 | 2 | DES reduce the risk of restenosis and therefore the cost of repeat procedures which justifies their use. | Comment noted. |
| NHS Professional 12 | 3 | These costs do not reflect the true cost of the stents in the UK. NHS hospitals pay much less than the prices quoted. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 12 | 4 | DES are not required by all patients but they are mandated in certain groups who are at high risk of restenosis - diabetics, small vessels and long lesions. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 12 | 5 | Implemetaion of the guidance as it stands would result in UK NHS patients receiving inferior treatment compared to the rest of the world. It would also expose patients to the increased risk which is associated with repeat procedures. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 12 | 6 | Further research is needed in the high risk patients. Larger registry data is also required. | Comment noted. |
| NHS Professional 12 | 8 | I think this date needs to be earlier in view of the rapid changes in stent technology. | The review date has been changed. |
| NHS Professional 13 | 1 | This generalised statement seems completely at odds with the weight of evidence of published RCT and registry data as well as the practice of the International cardiology community. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 13 | 3 | These prices do not reflect ""real world"" NHS experience which have driven down cost dramatically by the use of local consortia etc. The inclusion of unrealistic pricing adversely affects the conclusion based upon price differential which seems a basic fundamental flaw. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional | 4 | 1. The focus on audit data from a single UK centre is inappopriate | The Appraisal Committee |

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| 13 | | particularly when this audit"s methodology has been openly criticised. 2. The quoted ISR rate for BMS is too low and presumably based in the major part on the Liverpool data. 3. As noted above, the price premium does not reflect real world experience. 4. The exclusion of diabetics (although long lesion, small vessels acknowledged) is anappropriate. | did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. Regarding diabetes see FAD sections 4.1.23, 4.1.24 and 4.3.4 |
| NHS Professional 13 | 6 | Hopefully further collection of good registry data will better inform NICE in the future and obviate the need to rely on a single centre"s audit which does not seem to belong in the real world. | Comment noted. |
| NHS Professional 13 | 8 | As soon as possible.... | The review date has been changed. |
| NHS Professional 14 | 1 | i am very disappointed with the NICE document and am surprised that this eminent group should produce such a flawed statement. it is important to remember why DES were required. restenosis is not a benign condition. we remember the days of multiple procedures, brachytherapy, abrupt closure and the need for surgery for restenosis. we do not ask for DES for all lesions. there are clear indications for not using DES - aspirin/plavix intolerence, large vessels, planned non-cardiac surgery. current useage is probably correct. it is about 40-60% in our institution depending on operator and their case mix. let us have a proper statement next time!! | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 14 | 2 | it is important to remember why DES were required. restenosis is not a benign condition. we remember the days of multiple procedures, brachytherapy, abrupt closure and the need for surgery for restenosis. DES use has allowed us to offer treatments to relieve angina with | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | significant improvement in quality of live. especially in those patient who cannot have cardiac surgery or who fail medical treatment. | |
| NHS Professional 14 | 3 | currently in Belfast Taxus and Cypher stents cost 750 per stent. the price quoted and used for the cost analysis is obviously inaccurate. if there was re-analysis using realistic pricing then DES would be cost more effective. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 14 | 4 | - why has so much emphasis been give to flawed audit data from CTC? we have seen presentations from consultant from CTC who do not stand over the way the data has been collected and analysed. especially when it is at odds with the other published data. is there a conflict of intrest here? - the quoted rates of TLR with BMS is too low - its greater then 11% - probably 13-14% - the quoted benefit of DES on reducing TLR is not high enough - greater than 55%, probably closer to 75% - again DES cost 750 per stent so repeating the analysis with these figures would change the cost per QALY significantly | The Appraisal Committee was aware of the views expressed by consultees and commentators about the CTC database. Therefore it did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 15 | 1 | I think that the NICE document is flawed in its assessment of the benefit risk balance. The data on which it is based is flawed. Patients will be denied a valuable therapy based on flawed interpretation/data. | Comment noted. |
| NHS Professional 15 | 2 | I think that the NICE document is flawed in its assessment of the benefit risk balance. The data on which it is based is flawed. Patients will be denied a valuable therapy based on flawed interpretation/data. | Comment noted. |
| NHS Professional 15 | 3 | I think that the NICE document is flawed in its assessment of the benefit risk balance. The data on which it is based is flawed. Patients will be denied a valuable therapy based on flawed interpretation/data. | Comment noted. |
| NHS Professional | 4 | I think that the NICE document is flawed in its assessment of the | Comment noted. |

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| 15 | | benefit risk balance. The data on which it is based is flawed. Patients will be denied a valuable therapy based on flawed interpretation/data. | |
| NHS Professional 15 | 5 | I think that the NICE document is flawed in its assessment of the benefit risk balance. The data on which it is based is flawed. Patients will be denied a valuable therapy based on flawed interpretation/data. | Comment noted. |
| NHS Professional 15 | 6 | I think that the NICE document is flawed in its assessment of the benefit risk balance. The data on which it is based is flawed. Patients will be denied a valuable therapy based on flawed interpretation/data. | Comment noted. |
| NHS Professional 15 | 7 | I think that the NICE document is flawed in its assessment of the benefit risk balance. The data on which it is based is flawed. Patients will be denied a valuable therapy based on flawed interpretation/data. | Comment noted. |
| NHS Professional 15 | 8 | I think that the NICE document is flawed in its assessment of the benefit risk balance. The data on which it is based is flawed. Patients will be denied a valuable therapy based on flawed interpretation/data. | Comment noted. |
| NHS Professional 16 | 3 | I don"t know where yo ar getting your prices from at the moment we pay 400-800 GBP per drug eluting stent | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 16 | 4 | we pay a price premium of 100 to 300 GBP for a DES not 600 GBP | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 17 | 1 | Reply to Ischaemic heart disease - coronary artery stents (review): appraisal consultation document The appraisal consultation document is an attempt to discover if the use of drug eluting stents (DES) is cost effective for the NHS. It unfortunately bases its framework for calculations on non randomised audit data from a single cardiac centre in the U.K. The audit data from this single centre has previously been used to illustrate differences in clinical practice and patient outcomes across the U.K and as such is not necessarily representative of current U.K practice. | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections |

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| | | | 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 17 | 4 | The framework also fails to take into account the cost of target vessel revascularisation. Around 70% of patients with restenosis present with an acute coronary syndrome, either MI or rest pain resulting in hospital admission. This has a cost attached to it both in fiscal terms and in terms of morbidity to the patients who suffer this. Furthermore the form of repeat revascularisation in patients with restenosis especially those with multivessel stenting or long lesions is often coronary artery bypass surgery (CABG). Thus reducing rates of restenosis with DES will also reduce the number of very expensive and avoidable CABG operations. The use of audit data in this document, rather than data from published peer-reviewed randomised trials, calls in to question the scientific integrity of NICE. We do need national guidance on difficult clinical issues but if our guidance comes from committees who ignore the best practices of evidence based medicine what value can we attribute to this guidance. Who guides those who give guidance? Dr Fraser Witherow Consultant Cardiologist and Interventional Cardiologist Dorset County Cardiac Centre Dorset County Hospital NHS Foundation Trust | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 18 | 1 | This seems contrary to the data. Stents were invented to make PCI safer. PCI is a treatment for symptoms of chest pain and in actue cases to reduce re-infarction, re-admission and death. Therefore the advent of DES could not be expected to improve on the benefits already introduced by BMS. However, DES give us the confidence to treat cases that we would previously have referred for CABG. If this recommendation goes ahead then surgical referral rates will increase | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | dramatically in a system barely able to cope at present. | |
| NHS Professional 18 | 2 | The clinical need is undoubted and clopidogrel is widely used following ACS. There has been a marked change in practice meaning that more patients are investigated acutely and the benefits ot these patients are greater, both from stenting per se and from reduction in restenosis rates. | Comment noted. |
| NHS Professional 18 | 3 | These prices bear no relation to actual costs (around 600 to 700 per stent in our unit). | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 18 | 4 | It is not clear why the results of a small local audit have had such a disproprtionate effect on the proposed guidance. The kind of bias and lack of rigor involved in lending weight to such data surely makes it of passing interest only in this context. In addition the committee seems not to have acknowledged the dynamic nature of this field. More players are entering the market all the time and the price is steadily falling - it is not so far back the BMS cost 600 per stent - with a maturing market and central purchasing this will reduce the price further - just as you produce guidance suggesting that DES use should end! | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 18 | 5 | There is no doubt that if accepted in this form the guidance will be seized on gleefully by every chief executive looking to cut costs. However, a return to higher rates of restenosis and a lack of confidence in tackling complex cases will soon lead us to more repeat | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | PCI procedures and more CABG referrals (not taken into account in the economic assessment) and this in turn will abolish the savings | |
| NHS Professional 18 | 6 | There is no need for further research on this question - you have missed the point. This technology is supposed to be cost neutral (compared with exclusive BMS use) because it probably applies to 50-70% cases only and will reduce repeat procedures/CABG referrals. The only way to prove this is to randomise for financial reasons only (clinically you seem to accept that DES are better) - how do you think patients will take to that proposal? In any event these trials are already part of a continuing commitment by industry and interventionists. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 18 | 8 | If published in this form I think you will find yourselves reviewing it a few minutes later (when it hits the media). I suspect the patient storm you encounter will make you wonder if you should have taken a softer line. I also suspect that the first time one of you needs a PCI you will change your view immediately and want what your sepcialist recommends - its much easier to pontificate about Joe Public isn"t it? | The review date has been changed. |
| NHS Professional 19 | 1 | I believe this recommendation is entirely inappropriate, has been based upon an innacutate interpretation of the evidence and will ultimately lead to higher costs to the NHS and taxpayer due to increased restenosis rates if only bare-metal stents can be used in the NHS. Most interventional cardiologists already practice targeted use of drug-eluting stents in those at highest risk of clinical restenosis, based upon published peer-reviewed cost effectiveness data. For NICE to make a sweeping statement that DES are not recommended ignores the benefits in selected patient groups. The use of the Liverpool audit data to generate the cost effectiveness analysis is suspect, and NICE conclusions are contrary to other published data, expert consensus opinion and clinical practice throughout the developed world. | DESs are recommended in circumstances outlined in FAD section 1.1.<br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |

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| NHS Professional 19 | 3 | These list prices grossly overstate the actual prices paid by NHS trusts following local tender agreements. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 19 | 4 | The use of 2004 procurement costs is inappropriate. Increased competition is driving down DES procurement costs (negotiated locally), so the price premium has been overestimated. The use of single-centre audit data for cost-effectiveness analysis is inappropriate, in the face of substantial published cost-effectiveness analyses from elsewhere. It is wrong to add the cost of 12-months clopidogrel therapy to the analysis, without taking into account the likely reduction of stent thrombosis, acute MI and death that may be acheieved by this extension of clopidogrel therapy (ie: you should not use event rates based on shorter term clopidogrel use if you are factoring the cost of 12-month clopidogrel use into the cost-effectiveness analysis). | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 19 | 8 | Considering the fact that this is a rapidly eveolving field, and in view of the fact that (in my opinion) you have used historic and flawed data to generate the cost-effectiveness analysis, I am deeply concerned that the next review is scheduled for 2011. If this proposed guidance is passed (I hope it will not), please at least recognise that revisiting the topic should occur much sooner (eg: 2009 at the latest). | The review date has been changed accordingly. |
| NHS Professional 20 | 1 | I disagree strongly with the recommendations and feel that drug eluting stents should be recommended. I have two main reasons for this. Firstly, I believe the analysis to be flawed. There is a clear error in the analysis of the Basket study, stating that it was a 12 month follow up study when it was actually a 6 month study. This has led to an enormous underestimate of the benefit of drug eluting stents, with further errors in the analysis stated in section 4. Secondly, this review has not looked at areas where drug eluting stents are currently being | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | recommended over bare metal stents such as: chronic total occlusions, bifurcation/ostial lesions, bypass stenoses, diabetes, multi-vessel disease, unprotected left main stem and in-stent restensoses [ESC PCI guidelines EHJ 2005; 26: 804]; situations ignored in this review, yet untreatable by BMS due to extremely high restenosis rates. Due to the 1200 character limit my response is rather abbreviated. I have summarised everything in a word document, which I would very much like to submit to you if allowed. | |
| NHS Professional 20 | 3 | These prices are massive over-estimates of current NHS costs. Actual costs not list prices should be stated here. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 20 | 4 | your models values are wrong. The 11% BMS 1yr revasc rate is too low, quoting 10-25% earlier (mean 16%) [4.1.10]. You should thus use a value of 16% (13-18% sensitivity). You state long lesion rates 11.7% + small vessels 19%. Thuesen found 6/12 rates of 42% for BMS >=30 mm; Bagust found 25% rates in small vessels; West et al. found restenosis rates for BMSs of 550/2672 (21%) in normals and 130/418 (31%) in diabetic patients, with stent length independently predicting; Werner found rates of 51% for BMS after treating chronic occlusions reduced to 8% with DESs at 5 months. You should use values of at least 22% for long lesions; 25% for narrow lesions, 30% for diabetics, and 50% for chronic occlusions. A new analysis of only 1 DES at most per patient should be evaluated. The 55% 1yr rr reduction for DES is wrong. Your quoted literature is 74% Taxus, 83% Cypher, 79% overall [4.1.10]. You misquote the Basket trial stating a 41% 1yr reduction. It is a 41% 6month reduction, in keeping with these studies. You should use a value of 79%(74-83% sensitivity). The price premium of 600 is an over-estimate. You have previously stated 500 is an overestimate. 300-500 sensitivity should be used | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14.<br><br>The Institute has received data from PASA for 2007/08 see FAD section 3.6. |

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| NHS Professional 20 | 6 | There is no comment here for the expanding role of DES vs BMS eg bifurcation lesions, calcified lesions, left main stem, long lesions, chronic occlusions. All indications for DES over BMS in the current ESC guidelines. | Comment noted. |
| NHS Professional 20 | 8 | Please accurately reference the following, preferably with a web link as this review seems vital to your analysis and we should be given the opportunity to carefully review it: Hill R, Boland A, Dickson R, et al. Drug-eluting stents: a systematc review and economic evaluation, November 2005 | The review date has been changed. |
| NHS Professional 21 | 1 | Ridiculous. The re-stenosis rates are far higher for bare metal stents, condemning patients with coronary artery disease to further unnnecessary procedures. If NICE persist in this poorly-thought out strategy, then the UK should shut down its PCI programmes(including PAMI) and send all patients to cardiac surgery or medical therapy. A backward step? | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 21 | 2 | Accurate summary of current situation | Comment noted. |
| NHS Professional 21 | 3 | Prices are subject to marked variability and are generally much lower than those quoted above. Average DES prices in my unit are 850 for DES and 600 for BMS. Actually, quite a cost benefit, if you price out the cost of repeat procedures more frequently required in patients with BMS. Maybe NICE should outlaw the use of BMS (unless specifically indicated) for cost-effective and patient benefits! | The Institute has received data from PASA for 2007/08 see FAD sections 3.6. |
| NHS Professional 21 | 4 | There is clear evidence of benefit in diabetics, small vessels, long lesions etc. So there should be no disagreement about these cases. Anyone can make what they wish of any evidence! A few fiddles and everything changes. Putting in various combinations of cost, and not keeping up to date with the current price reductions in DES charges is a great way of making the cost-effectiveness figures appear the way | DESs are recommended in circumstances outlined in FAD section1.1. |

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| | | they do. The fact is, that inaccurate calculations are going to have such a profound effect on patient management. The plain bare facts are that the repeat revasc rates for DES vs BMS are <5% vs up to 25%. Evidence-based medicine is supposed to take into account clinical experience as well as the results of RCTs. Are you really prepared to ignore your clinicians who are telling you how well these technologies work, by using them more and more? I think the NICE suggestions (incidentally - why are there NO cardiologists on the committee?) are letting patients down and dooming them to repeat procedures. This will cost more and have a profound economic impact in hospital bed usage, and time away from work. | |
| NHS Professional 21 | 5 | It would be very difficult (and unethical?) to follow a guidance that is so totally incorrect. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 21 | 6 | Agree | Comment noted. |
| NHS Professional 22 | 1 | By way of provocation, spot on and probably necessary. By way of practical advice, too extreme to be taken seriously. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 22 | 2 | Excellent summary | Comment noted. |
| NHS Professional 22 | 3 | 1) Formal ""Indications for use"" have not generally been adhered to by clinicians who have used these products ""off-label"" eg bifurcations, left main stem. Thus the mean number of DES per case used ""on-label"" is likely to be significantly less 2) Centres performing high volumes of procedures (>1000 per annum) are able to purchase DES significantly less than stated above. Centres performing > 1500 | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |

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| | | per annum purchase at approximately half of the costs stated. | |
| NHS Professional 22 | 4 | The evidence submitted appears to contemporaneous and sound. My concerns are: 1)the Committee"s blind faith in the audit data and economic model of just one group. Are we able to compare with other groups/models? 2)has the Committee taken account of the additional costs incurred in patients with BMS who will require continued and additional medication, repeat angiography and/or CABG as a result of increased restenosis? | The Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 22 | 5 | No comments | Comment noted. |
| NHS Professional 22 | 6 | Agreed | Comment noted. |
| NHS Professional 22 | 7 | Agreed | Comment noted. |
| NHS Professional 22 | 8 | Given the Committee"s satement in Section 6.1 my feeling is that 2011 is probably too long | The review date has been changed. |
| Patient 1 | 1 | I had stents inserted at LCH in stepney in dec 05, since then I have had recurrent chest pains, shortness of breath and panic attacks as a result. All the negative press regarding these inserts are a great worry. The stents themselves do not flex and any exertion means that I get very faint easily. As yet I still have not started or had any realistic advice or help in relation to the lifestyle that I need to pursue to live. I welcome any real appraisal of what I, as a mechanical engineer by | Comments noted. |

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| | | trade see a helicoil type insert that does not allow flexibilty within the artery when increased blood flow is required.i ncidentally I am still taking clopidogrel 18 months after the proceedure. | |
| Patient 1 | 2 | I have received information that co insides with the published views from other sources and ,while I appreciate the need to keep arterial blood supply flowing the points here are all covered in my original files and there needs to be more research done before the stents can become a realistic alternative, when costs are taken into account what happens to the conflict caused by taking the hippocratic oath. I believe that the stents are a liability rather than cure. | Comments noted. |
| Patient 1 | 3 | Cost does not appreciate the need for life and in this factor it is a breach of the first principle of the human rights act 1998 when the alternative issue is the saving of life no matter what cost. | The Appraisal Committee does not consider the affordability, that is costs alone, of new technologies but rather their cost effectiveness in terms of how its advice may enable the more efficient use of available healthcare resources (NICE Guide to the Methods of Technology Appraisal, paragraphs 6.2.6.1 – 6.2.6.3). |
| Patient 1 | 4 | I believe accounting proceedures deny life. | Comment noted. |
| Patient 1 | 5 | The fact that the secretary for stste is involved and the decision is swayed by lobbying is an affront to the patients need for surgery. | Comment noted. |
| Patient 1 | 6 | See other statements | Comment noted. |
| NHS Professional 23 | 1 | I may have missed it but what is the position on in-stent re-stenosis? Another BMS?POBA? | DESs are recommended in circumstances outlined in |

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| NHS Professional 23 | 2 | The risk of late thrombosis has been quantified. The associated mortality should be mentioned. This should be compared with the expected mortality for re-intervention (CABG or PCI) when using BMS only. | Comment noted. |
| NHS Professional 24 | 1 | I find it hard to understand how having read the same literature individuals can come to radically different conclusions about the value of drug eluting stents. My reading is that the judicious use of drug eluting stent is of clinical and economic advantage. I would agree that the blanket use of drug eluting stent is not appropriate but the converse blanket recommendation that they should not be used is also inappropriate. Statements about proportions of drug eluting stent to bare metal stent implantation is not useful. Identification of individuals who the randomised trials suggest are at greatest risk of coronary restenosis following angioplasty and therefore are most likely to benefit from drug eluting stent implantation should be the guidance in terms of recommendation for the use of these devices. The statement from the BCIS summarises the objections to cost effectiveness and other data used to justify your recommendation that drug eluting stents should not be used in the treatment of coronary artery disease. I don''t think I can add to their comments. It seems clear to me that you cannot rationally justify your position and it should not be adopted. | DESs are recommended in circumstances outlined in FAD sections 1.1.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 25 | 1 | As a doctor wanting the best choice of treatment for my patients, I find it very difficult to understand how the committee has come to this overall conclusion. It simply cannot be based upon evidence relating to patient care benefit, and nor would it be what members would choose for their own treatment! | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 25 | 4 | The clinical benefit of real life reductions of TVR for carefully slected DES versus BMS is unequivocal. Restenosis is associated with | DESs are recommended in circumstances outlined in |

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| | | morbidity and mortality and uncertainty. This review has underestimated the importance of this... it is about looking after patients well. The cost effectiveness argument has been pursued in a flawed and dubious manner.... what is the real agenda here? Is it really about patient care? | FAD section 1.1. |
| NHS Professional 25 | 5 | I warn the committee that the implications of this irresponsible guidance will be a rapid increase in referral of patients for CABG surgery. NICE need to assess the financial and logistic impact of this inevitable shift in UK revascularisation trends before finalising this guidance, and spare a thought for the people having a much more invasive and risky therapy they don"t choose & could have avoided | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 26 | 1 | Out of step with the rest of the world. Will ensure that our reputation for being the control population will continue. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 26 | 2 | There is little doubt that DES use has risen further than evidence covers but there is certainly a need and the conclusions unjustified. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 26 | 3 | Nil | Comment noted. |
| NHS Professional 26 | 4 | Unfortunate to rely on a database ( Liverpool ) which is not representitive of overall UK/European practice | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 26 | 5 | As BMS are cheaper I"d be certain that these proposals would be followed and actively monitored by trusts - even though their | Comment noted. |

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| | | cardiologists will protest. | |
| NHS Professional 26 | 8 | Much too long - this is a rapidly changing area. | The review date has been changed. |
| NHS Professional 27 | 1 | This appears bizarre statement. The appraisal document presents evidence that DES have a greatly improved outcome in terms of revascularization, and there is evidence of cost effectiveness in large subgroups of patients. Then it is says there is no recommendation for implanting such stents. This appears to be because the only data used in the conclusion was from the Liverpool AUDIT data rather than randomised trials. One would hope that NICE would understand that RCTs are in a different league to audit data. | DESs are recommended in circumstances outlined in FAD sections 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 27 | 4 | This appears bizarre statement. The appraisal document presents evidence that DES have a greatly improved outcome in terms of revascularization, and there is evidence of cost effectiveness in large subgroups of patients. Then it is says there is no recommendation for implanting such stents. This appears to be because the only data used was from the Liverpool AUDIT data rather than randomised trials. One would hope that NICE would understand that RCTs are in a different league to audit data. | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 28 | 1 | Misguided and surprising conclusion based on data below. | DESs are recommended in circumstances outlined in |

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| | | | FAD section 1.1. |
| NHS Professional 28 | 2 | PCI has never demonstrated mortality benefit....so why focus on it now? Symptomatic relief and QoL should be considered togtether with overall true cost over a number of years. | Comment noted. |
| NHS Professional 28 | 4 | When one considers the widespread use of DES, it is totally inappropriate to repeatedly quote Liverpool data. The modelling is unbalanced and costs could be accrued quickly in real-life if funding was made available for a true national and accurate database. Is it appropriate for a memebr of the committee to be a Cardiologist in Liverpool and for the data from his unit to be used so extensively? | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD section 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 29 | 1 | This is an incredible recommendation that flies in ths face of numerous published randomised clinical trials as well as accepted practice throught Europe, the US, Canada, Australia, Japan, etc and numerous less developed countries | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 29 | 2 | There is an undoubted major clinical need for interventional therapies such as PCI, stents and DES | Comment noted. |
| NHS Professional 29 | 3 | List prices are out of date. Economic assessment requires the use of accurate data | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 29 | 4 | It is remarkable that after a careful evaluation of published randomised clinical trials from a wide variety of centres, the Committee then decided to place huge emphasis on a single observational study from Liverpool in arriving at its conclusions. Even more astounding that no special consideration for high restenosis risk subgroups!! | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs |

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| | | | model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 29 | 6 | Whats the point if recommendations are then based on single centre observational studies? | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 29 | 8 | Lets hope its not implemented. If implemented, should be reviewed in 12 months | The review date has been changed. |
| NHS Professional 30 | 4 | In Hull and East Yorkshire Hospitals the current tender prices for all drug eluting stents are 550-600, compared with 200 for bare metal stents. The price premium is therefore 350-400, which is between 33-42% lower than that used in the Assessment Groups model. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 31 | 1 | I agree | Comment noted. |
| NHS Professional 31 | 2 | I agree | Comment noted. |
| NHS Professional 31 | 3 | I am astonished at the expense of DES. Therein lies the principle problem with DES. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 31 | 4 | The ""off-label"" use of DES is far more prevalent than ""on-label"" use. Consequently, most DES are used in lesion types that have not been subjected to appropriate study. The real-world cost of DES is in all likelihood even greater than estimated above, because of their application in settings where they have not been exposed to randomised studying. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 31 | 5 | Nothing to add. | Comment noted. |
| NHS Professional | 6 | One of the problems of DES is the legitimacy of the scientific basis | Comments noted. |

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| 31 | | upon which their efficacy is presumed to depend. Suffice it to say that there is no convincing evidence that SMC proliferation is an essential component of in-stent restenosis. It is more likely that the ""efficacy"" of eluted drugs is a consequence of cytotoxicity at the site of delivery. Drugs that act by new mechanisms are essential to advance the technology of DES to the point where it will be cost effective. | |
| NHS Professional 31 | 7 | Nothing to add. | Comment noted. |
| NHS Professional 32 | 1 | Appalling conclusion based on a single centre audit and totally ignoring the wealth of multi-centre randomised data. This guidance would set interventional cardiology in the UK back into the Dark Ages and make us the laughing stock of the world flying, as it does, in the face of British, European and International guidelines and accepted practice. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 32 | 2 | Your very data shows the proliferation of patients able to be treated with the advent of DES. A significant number of debiltated patients, leading miserable lives receive DES stents, many of these are surgical turndowns and would be condemed to life of misery under this poorly judged guidance. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 32 | 3 | CoStar stent withdrawn | Comment noted and FAD section 3.4 amended accordingly. |
| NHS Professional 32 | 4 | There too few characters to anlayse this deeply flawed analysis adequately. How does NICE incremental QALY topout at over 400,000 compared to the company analyses of approx 30000 and the ten economic analyses show incremental QALY of approx 13500-45000. This data is clearly grossly flawed. By your own quoted data dramatic reductions in re-revascularisation are achieved with DES | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, |

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| | | compared to BMS most commonly a second procedure having to re-treat previously implanted BMS. | 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 32 | 5 | This damaging, detrimental and deeply flawed assessment should clealy not be implemented | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 32 | 6 | Nothing new here - this is already being conducted by the speciality including comparison of DES against surgery the 3 year data recently published looks comparable that is not so with BMS. | Comment noted. |
| NHS Professional 33 | 1 | It appears that the evidence from RCTs has been subjected to the statistical flaws of meta-analysis and then the outcome of this entered into a model created from a single centre (presumably not peer-reviewed in a reputable journal) audit. The economic cost effectiveness data appears to be at odds with that provided by the experts involved in purchasing them. The evidence suggests that there are well-defined clinical subgroups of patients who benefit from reduced rates of revascularisation when a DES is utilised. The recommendations made, based on erroneous assumptions, will potentially deny these patients the treatment they should be offered. The recommendations are at odds with both European and American Association guidelines. NICE has once again left the practicing clinician in "no man"s land". | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 34 | 1 | This is the wrong conclusion. By stating that there are no patients undergoing PCI who require DES the appraisal committee has brought itself in to disrepute. There is clearly no role for "routine" DES use but ther are strong specific indications including the treatment of instent restenosis (apart from CABG surgery ther is no other effective treatmnet for this)and the treatment of patients with long lesions in small vessels (again, the only alternative is CABG). If DES are not | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | used, there will be a large increase in demand for CABG and there are no "spare" cardiac surgeons in the UK. | |
| NHS Professional 34 | 2 | The use of DES should not be expected to reduce death and MI. This technology is designed only to reduce instent restenosis which presents in about 80% of cases with recurrent effort angina. The best measures of success are therefeore the proportion of angina free patients and the rates of TVR/TLR. | Comment noted. |
| NHS Professional 34 | 3 | Real world costs are about 250 for BMS and 600 for DES. Price premium is about 350. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 34 | 4 | The fact that low restenosis rates mean that it is now feasible to treat patients with severe disease (disease over long segments) by stenting rather than CABG has not ben fully considered. The correct comparators for many cases are the costs and mortality of CABG rather than those of use of BMS or continued medical therapy. | Comment noted. |
| NHS Professional 34 | 5 | This provisional guidance should not be implemented. Judicious use of DES is a sensible and effective use of NHS resources. Costs are falling rapidly and the problem of late stent thrombosis is exerting its own effect on the use of DES. With due respoect to NICE members, you should accepot from the experts using this technology that it is appropriate in about 40-50% of cases and that the consequences of no DES use will be a high requirement for CABG. This is not feasible and will not be attractive to patients. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 35 | 4 | The assessment relies on observational, non-randomised and non-blinded data from the Liverpool Cardiothoracic Centre audit. This data presumably cannot control for the likelihood that the clinical characteristics of patients treated with DES are likely to be different from those treated with BMS. The introduction of DES has resulted in PCI being undertaken on many patients at present who historically | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the |

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| | | would not have been offered PCI with BMS by virtue of unfavourable anatomy (long lesions, small vessels). The restenosis rates estimated by the committee for the model may not be appropriate as the characteristics, and the hence the risk of restenosis of patients treated with BMS (both currently and historically) are likely to be different from those currently treated with DES. The assessment committee appears to have taken no account of the fact that DES have changed clinical practice with PCI being undertaken in a very different population than before. It is therefore inappropriate to use an estimated restenosis risk derived from observational audit data to patients treated with DES. | parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 36 | 1 | In sub-groups of coranary disease patients (those with small vessels, long lesions or diabetes mellitus) drug-eluting stents are clinically effective and cost-effective because they reduce restenosis rates and hence the need for further revacularisation procedures. DES should be recommended for use in these patient sub-groups which probably comprise half of patients suitable for PCI. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 36 | 2 | Agreed. | Comment noted. |
| NHS Professional 36 | 3 | The list prices are not the same as the cost - which is frequently lower. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 36 | 4 | It appears that data from a single non-randomised audit have been given priority over those from RCTs. This is inappropriate and leads to conclusions which contradict clinical guidelines. | The Appraisal did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional | 1 | I strongly believe that this would be a major backward step for patient | DESs are recommended in |

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| 37 | | care in this country. As an interventional cardiologist who has been involved in this field since the introduction of angioplasty I know that this technology has been a significant advance, particularly for more advance and complex disease. I fully support the comments of my Professional Organisation (BCS/BCIS) in regard to DES. | circumstances outlined in FAD section 1.1. |
| NHS Professional 37 | 2 | In my Hospital we have been aware of the issue of late stent thrombosis and have recommended the use of clopidogrel for 12 months (for the last 2 years) | Comment noted. |
| NHS Professional 37 | 3 | The prices we pay are very substantially less than list price (less than half) | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 37 | 4 | See comments from BCIS/BCS | Comment noted. |
| NHS Professional 38 | 1 | Current guidlines should be based on current evidence. NICE needs to review the evidence from 2006 and 2007 to formulate a valid opinion on the use of DES in IHD. | DESs are recommended in circumstances outlined in FAD section 1.1. The review date has been changed. |
| NHS Professional 39 | 1 | It would seem that there has been a group of people who are identified as high risk of CHD are the same people who are being short changed in their treatment of thier disease. These group of patients tend to be people who are turned down from having CABG due to a high mortality and morbidity of surgery, yet their only option would be a PCI using a bare metal stent with the likely hood of having to have repeat procedures due to in stent restonisis due to their co-morbiditys with CHD. To me this seems a poor way of treating a groupof people who we already know are going to have a higher incidents of CHD. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 39 | 2 | It seems in this day of ever increasing patients being admitted as an emergency with an acute coronary syndrome and normally with other | DESs are recommended in circumstances outlined in |

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| | | co-morbidities that by ignoring and stopping consultants from using a drug eluting stent we are putting these high risk patients in a position where we will be treating them knowing that they are likely to return because they have not been given a stent with the technology to help with these type of patients and the type of lesions that caused their admission. | FAD section 1.1. |
| NHS Professional 39 | 3 | The prices you ahve quoted are not what the local hospitals are paying and this is difinitely not what I am paying in my District General hopsital. At the prices you ahve mentioned I could get 2 for the price of 1. Taxus are 590 and Endeavour are 635 with the equivalent being Liberte at 140 and Driver at 150. I think these prices are far more realistic than what has been quoted and to that end should not be part of the reson for saying no just because of the price. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 39 | 4 | regarding the cost of the DES we have just done a big local consortium and that means we ahve all the local Trusts working togeaher to ensure we get the technology at a lower price so that all can be treated which shows a hugh reduction in price for these sttents which doesn''t seem to be reflected in the above FAD sections. You ahve mentioned again that there are a set of patients with a certain type of lesion either small vessel or long in length who are the exact group of people who are going to be punished by not using DES in them. Thye will have to have 2 options which will mean they are either going to be turned down for CABG due to their co-morbidities or they are going to be having revascularization more than once with no long term benefits and I think DES give these group the best benefit. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 40 | 1 | This would mean effectively a blanket ""ban"" on the availability of DES on the NHS, meaning that healthcare provision in this country would fall even further behind the rest of the developed world, and taking away from highly qualified clinicians the ability to tailor each | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | patient"s individual treatment based on the most appropriate evidence available. | |
| NHS Professional 40 | 2 | There is undoubtably a clinical need for DES in a significant number of patients (although not all). | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 40 | 4 | It seems that a lot of the decisions regarding cost-effectiveness have been made on the basis of audit results from a single interventional centre within the UK. These audit results will have been presumably neither peer-reviewed or validated in any other way and may not reflect results from other centres. Data is presented in the guidance which clearly shows the overwhelming benefit of DES in a substantial number of patients with regard to both MACE and revascularisation outcomes. Was the additional cost that would be incurred by a repeat PCI procedure or even CABG factored in to the costings presented here? This cost would include not only hospital based costs (including bed stays, drugs and further stent costs), but costs to the economy as a whole in terms of work-time lost by sickness as a consequence of either repeat intervention or ongoing symptoms. | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 41 | 1 | The Appraisal Committee"s conclusion is seriously flawed and based on data that is inaccurate.Furthermore, a proper reply to the Committee"s appraisal cannot be constructed because the evidence from CTC is not readily and rapidly available.The Appraisal committee"s conclusion fails to recognise the impact that Drug Eluting Stents have on patient wellbeing. Specifically it fails to take account of the significance of the reduced numbers of procedures required if DES are used. Using DES results in shorter waiting times, reduced radiation exposure to staff and patients, reduced risk of repeat procedures. Healthcare comes at a cost. This conclusion is another | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee was aware of the views expressed by consultees and commentators about the CTC database. Therefore it did not accept |

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| | | example of NICE responding to pressure from the Treasury to limit or ration healthcare to the population of the England and Wales. If DES are denied to NHS patients, it will result in a further example of 2 tier healthcare system as Private Patients will continue to be able to receive DES if clinically appropriate. Finally, it will be ridiculous if patients in England and Wales are denied access to Drug Eluting Stents, whereas those in Scotland and other parts of the EU will be able to be treated appropriately with DES. | all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 41 | 2 | This FAD sections is accurate | Comment noted. |
| NHS Professional 41 | 3 | The data is correct. However, list prices are rarely paid for either DES or BMS. One of the factors which may be importnat is that Stent manufacturers have significantly reduced the price of BMS to act as a ""loss-leader"" in deals with NHS trusts in order to secure business. The price of DES has not fallen by a similar proportion. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 41 | 4 | I am unsure how the Committee has reached its conclusion. It seems to have plucked figures from the air when reaching a figure for revascularisation rates and relative risk reduction. The data used from Liverpool appears so at variance with the other data available from clinical trials it can surely not be used as a basis for any calculations. I do not think the committee should be looking solely at cost effectiveness in any case as this fails to represent the true clinical significance of these devices. | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 41 | 6 | I think NICE or the Department of Health should commission a study driven purely by cost effectiveness comparing DES to BMS with | Comment noted. |

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| | | available existing technology. However, this would be ethically very difficult to justify as patients would have to agree to accept a higher rate of revasularisation and risk of repeat procedures. | |
| NHS Professional 42 | 1 | This is an outrageous conclusion which is not supported by the evidence base and this recommendation would have a serious adverse effect upon the high standard of care which I and my colleagues strive to provide for patients. The economic analysis is deeply flawed and heavily biassed by the results of a single centre audit. We would be asked to lower our standard of care and I believe that patients must be offered the posibility to self-fund the additional cost of DES where they are felt to be clinically indicated without incurring the full cost of being referred to the private medicine sector. | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 43 | 1 | The potential recommendation by NICE that DES are not effective is short sighted & not evidence based. It risks alienating a significance percentage of our patients who, being at high risk of restenosis, risk either multiple procedures or referral for CABG. The implications of this decision have clearly not been thought out - the cost effectivness arguement must include the additional costs of CABG and the associated infrastructure needed to support growth in this area. This would be a step backwards & create a two teir system with privately insured patients continuing to receive DES. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 43 | 3 | These costs are largely inaccurate & are not fixed, but depend on market forces - for example if a figure was needed to acheive this mythical goal of cost effectiveness this could be negiotiated. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 43 | 4 | There are a number of issues that continue to compromise the Liverpool cost-effectiveness model presented in Addenda 3 and 4. | The Appraisal Committee was aware of the views |

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| | | These are: Continued reliance on the CTC database to establish baseline risks for repeat revascularisation. This is inconsistent with the Appraisal Committees request that the Liverpool group update the economic model with absolute risk of repeat revascularisation taken from the Scottish registry (Addendum 3 page 48) and other larger substantiated published databases. Continued reliance by LiG on the CTC database to derive the absolute quantitative relative risk excess for the independent risk factors of small vessels, long lesions and diabetes. This is inconsistent with the Appraisal Committees request that the Liverpool group update the economic model with the relative risks taken from the published trials (Addendum 3 page 48). Continued use of a 41% risk reduction consequent on the use of DES by LiG (as indicated in Addendum 3 page 38). It is quite clear that without even addressing the inappropriate use of TVF versus TLR, the continued use of 41% TVR is based on BASKET trial results at 6 months and under-estimates the risk reduction expected at 12 months. Again this was a NICE discussion point at the last assessment meeting. The assumption that 100% of DES patients receive only 3 months Clopidogrel when those with acute coronary syndromes (44% of patients treated on a national scale according to the BCIS 2005 audit) already receive 12 months Clopidogrel. Given these issues, particularly noting that the first two points were supposed to have been implemented in the first Addendum (3), we have recalculated the cost-effectiveness of DES using the correct clinical data inputs. This is perhaps unusual for a professional society at this stage of an Appraisal, but is necessary because the Liverpool group have persistently failed to use these data. Failure to do so makes a mockery of the purpose of the exercise in finding the true benefit and cost efficacy of the device. The economic model used in this professional body response has been constructed using the | expressed by consultees and commentators about the CTC database. Therefore it did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28 and 4.3.13. |

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| | | equations shown on page 104 of the original Assessment Report and employs cost data, resource use data and quality of life data shown on page 113 of the Assessment Report and pages 3 to 5 of Addendum 4. We have not separated elective and non-elective patients, but used elective costs and resource use. This is because elective repeat revascularisation costs are lower and stents per procedure higher, thus making the model less favourable to the cost-effectiveness of DES. We have adopted a simple approach to repeat PCI by using the NHS reference cost for PCI as this inherently allows for the case mix of PCI involving no stents, BMS or DES. | |
| NHS Professional 43 | 7 | The BCIS model can reproduce the results of the Liverpool model within 1% when the same DES premium, wastage rate, CTC absolute revascularisation risk, 6-month DES risk reduction and proportion of patients receiving 9-months additional Clopidogrel are used as inputs. Substituting repeat revascularisation rates from the Scottish registry, risk factor relative risks from the trials and wider literature, 12-month DES risk reduction from the randomised trials and wider literature reduces the base-case ICER by 80%. All three high-risk sub-groups are cost effective up to a DES price premium of 354. Threshold premiums to achieve an ICER of < 30,000 per QALY gained range from 354 to 491, dependent upon the sub-group. BCIS recommend that the existing guidance for the use of DES be retained, with the addition of diabetics as an additional sub-group | The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 44 | 1 | I strongly disagree with the conclusions of the Appraisal Committee and the methods by which these have been reached. I support the Joint Statement from the British Cardiovascular Intervention Society (BCIS) and the British Cardiovascular Society (BCS) submitted by Dr Nick Boon (President of BCS) and Dr Martyn Thomas (President of BCIS) and the supplementary statement from BCIS. I am particularly | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the |

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| | | concerned that the advice from the BCIS expert representatives (Dr Thomas, Dr Gershlick and Dr Oldroyd) appears to have been ignored. The results of well conducted, peer-reviewed, multi-centre, large, randomised trials have been acknowledged, but then conclusions drawn from a small local audit. This completely goes against good medical practice and clinical governance, especially where national guidelines are concerned. Whilst the Assessement Group accept the excess risk associated with small vessels and long lesions their conclusions will deny these patients the proven effective therapy (DES). This will also be the case for patients with diabetes, in-stent restenosis in BMS and chronic total occlusions for whom there is Class I A or B evidence available for benefit with DES. | parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 44 | 2 | This is a good summary of clinical need and practice. | Comment noted. |
| NHS Professional 44 | 3 | No comment. | Comment noted. |
| NHS Professional 44 | 4 | The base BMS rate (11%) is lower than that presented by BCIS (~13%) based on the evidence and I am not clear how the rate of 11% has been calculated. The trials show a relative risk reduction with DES over BMS of 70% whilst the Assessement Group have a figure of 55%, again I am unclear where this number has come from. I do not have any knowledge of price premiums, but understand from Dr Gershlick"s summary comments (BCIS information officer and expert representative) that the value of 600 is a significant overestimate. Clearly innacuracies in these figures (lower BMS base restenosis rate, lower absolute DES benefit and inflated price premium) will have a massive impact on cost efficacy. I cannot understand how the expert representatives figures, which are acknowledged in the document, have been completely ignored in the cost efficacy calculations. | The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |

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| NHS Professional 44 | 6 | There are a number of groups of patients seen daily in clinical practice who have limited options available. These include patients turned down for or who do not want bypass surgery, patients with bifurcation lesions, ostial lesions, multivessel disease and stenosis within saphenous venous grafts. These patients will have to continue with bare metal stents or medical treatment if these NICE recommendations are accepted. It is unlikely that randomised trials will be completed comparing BMS and DES in these patient groups if DES are withdrawn from clinical practice in the UK. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 45 | 1 | This is a flawed and clinically inapporpriate guidance based not only on the established clinical success of drug eluting stents but also the value in using them in patients who have a high risk of restenosis particularly those with complex, bifurcation and multivessel disease especially where surgery is high risk or contraindicated and who are significantly limited by their symptoms. The groups of patients being treated with DES are often different from those treated with BMS so this guidance will deny appropriate treatment in some patients rather than substituting it. The acceptance of clinical benefit by NICE has not informed sensible and clinically excellent guidance but rather a cost pressure based on flawed, observational audit data and list price data that does not reflect actual cost within the current NHS environment. | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional | 2 | It should be recognised that not all drug/stent combinations are the | Comment noted. See FAD |

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| 45 | | same and the newer generation DES may have less risk of late stent thrombosis. | section 4.3.3. |
| NHS Professional 45 | 3 | The list prices are irrelevant and misleading. They do not reflect the actual cost of stents within NHS Trusts which, in my own experience, is significantly less that 50% of the prices quoted above. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 45 | 4 | The use of the Liverpool data is flawed. The RCTs indicate a >70% relative benefit from DES compared to BMS and this clear, scientifically sound RCT data, has not been reflected in the Liverpool model. It would seem the assessment panel have used 55% as an arbitrary figure which is inappropriate given the RCT data to inform this. In addition, the Liverpool data should be discounted in this regard for exactly the same reason. NICE cannot demand clear, scientific RCT data then choose another figure themselves or allow inclusion of published information such as the Liverpool data which does not conform to this scientific rigor. Would suggest that NICE needs to consider renaming itself the National Institute of Clinical Accounting if this guidance is confirmed as it in no way reflects Clinical Excellence. | The Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 45 | 6 | Given the important to NICE that RCTs underpin the guidance, it is disappointing and inappropriate to base the cost effectiveness data on a poorly conducted observational audit given the acceptance of the clinical benefits of DES in comparison to BMS based on large RCTS. | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sectionss 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 46 | 1 | Disagree strongly. Several groups of patients and lesion characteristics are at very high risk of restenosis (diabetics, long | DESs are recommended in circumstances outlined in |

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| | | lesions, small calibre vessels, occlusions, in-stent restenotic lesions, pts with prior CABG) and PCI in many circumstances would be unthinkable without option of DES. Many patients would require unncessary coronary bypass surgery a major undertaking associated with substantial morbidity and recovery time and many pts are poor surgical candidates and have been turned down. Patients with only single or double-vessel disease who have already had restenosis with bare metal stents would likely have no other option other than major cardiac surgery if DES were not available. The capacity of cardiac surgical facilities to deal with this demand is not sufficient and is unlikely ever to be so given its dependence on ICU facilities and the length of time each procedure takes and the post-operative hospitalisation and recovery. This would once again result in several month delays before patients with ischaemic heart disease could undergo effective revascularisation | FAD section 1.1. |
| NHS Professional 46 | 2 | Agree with above | Comment noted. |
| NHS Professional 46 | 3 | The price of the commonly used DES is vastly overstated above with price of CYPHER stents approximately 940 and TAXUS stents being 815 | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 46 | 4 | The overwhelming conclusion from the large numbers of published RCTs is the marked superiority of DES over BMS with respect to overall MACE. There is no increase in mortality with DES with "on-label" use. While there may be a very small increase in stent thrombosis where used "off-label" it is precisely this group of patients (eg long lesions, bifurcations, vein grafts etc) that are at higher risk of death, MI and restenosis and the use of DES in these patients overall is of significant clinical benefit. The Liverpool CTC audit data is a single centre report, deeply flawed and should not determine policy | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee was aware of the views expressed by consultees and commentators about the CTC database. |

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| | | guidelines in the face of quality RCT data. The BMS restenosis rates quoted fly in the face of data from RCTs and real world registry data. The cost analyses performed using this data are therefore also deeply flawed and cannot be accepted. | Therefore it did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 46 | 5 | No further comment | Comment noted. |
| NHS Professional 46 | 6 | If further consultation is undertaken to allow analysis of data comparing 1st generation DES with 3rd generation BMS, this is should also be expanded to allow data from the use of newer 2nd generation generation DES. Would strongly urge against drastic blanket exclusion of all DES funding | Comments noted.<br>DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 46 | 7 | No further comment | Comment noted. |
| NHS Professional 46 | 8 | 2011 is too far into the future to allow satisfactory review of guidance in a field such as Interventional Cardiology with the amount of clinical trial data becoming available every month, let alone every year. Why are there no Interventional Cardiologists on the Appraisal Committee ?! | The review date has been changed. |
| NHS Professional 47 | 4 | This interpretation is based too much upon the Liverpool data which are accepted, within the interventional cardiology community, to be majorly flawed (single centre experience which differs markedly from the published results of large registries and RCTs should not be used to drive the analysis. To abolish use of DES within the UK will set us back years in the management of coronary disease and will mean that patients are put forward for major cardiac surgery inappropriately. | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and |

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| | | Also, your analysis makes no mention of the use of DES for treatment of restenosis in patients with BMS in place | assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 48 | 2 | 2.12 The continued need for dual antiplatelet therapy to prevent stent thrombosis puts patients who subsequently need major surgery e.g hip replacement at a great disadvantage - if they stop this treament prior to surgery (as they are usually are to prevent intraoperative bleeding) they run the risk of Mi and death and if they do not, surgery is often refused or carried out with a greater risk of bleeding. | Comments noted. |
| NHS Professional 49 | 1 | Much too strong. Flies in the face of the vast weight of the evidence. The main worry is late stent thrombosis but this has not yet been established with proper long term RCTs; and nor has the role of longer term dual antiplatelet therapy. Suggest removing the word "not" and replacing with "generally". | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 49 | 2 | Maybe worth adding that the uptake of DES in the UK has been typically cautious, boith clinically and cost-effectively. Interventionists have been verey sensible in their use of this technology, realising it is not necessary to implant a DES in every case and in every lesion, but reserving it for deserving arteries (long lesions, small vessels). This contrasts, for instance, with uptake in the USA. | Comments noted. |
| NHS Professional 49 | 3 | These prices are pure fiction. In reality, the companies are now competing hotly (a good thing) and they also strike deals with invidual health care providers. The reality is that the price is nearer 6-700 in the UK, and is likely to fall further. This list also hides the fact that there are really only 3-4 big players, which have the vast majority of the efficacy evidence. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional | 4 | The bottom line of all this is that DESs reduce dramatically repeat | DESs are recommended in |

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| 49 | | interventions and there is no evidence of increased mortality compared with BMS. There is a suggestion of a tiny increment in late stent thrombosis. There is huge margin for error in the economic assessment because of the falling prices of DES, so evidence will be out of date. There is clearly work to be done in all these areas. Having done research in the field of PCI since 1991, it is clear to me that the stent improved on the balloon, and the DES improves on the BMS. There are problems, real and potential, with all technologies. It is absolutely wrong to "throw the baby out with bath water" and stop the clock in 1999. | circumstances outlined in FAD section 1.1. |
| NHS Professional 49 | 5 | Be aware that Health Managers will not be so reasonable as Cardiologists and will pounce on your recommendations, citing them as a reason not to stock DES. This will greatly disadvantage most of my patients (I specialise in complex PCI , high risk cases and surgical rejects). | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 49 | 6 | Agreed. No question. But banning DES will not fuel this work. Remember the government funds very little research in this area - we have to rely on corporate sponsorship - like it or not - and they won"t invest in research if you ban their product. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 49 | 7 | Now this is history. Shows how quickly this field is moving. But it is important for you to get this right. Hopefully by | The review date has been changed. |
| NHS Professional 49 | 8 | Super. WHERE ARE THE INTERVENTIONAL CARDIOLOGISTS ON THE PANEL BELOW - AND WHY HAVE YOU NOT ALLOWED COMMENTS ON THAT? You really must get some experts ONTO THE PANEL FROM BCIS. I spend my entire professional life treating patients with BMS and DES, attending international meetings in the subject, lecturing etc etc and to be given edicts by a panel which doesn"t include practical experts in the area (no disrespect to the areas of expertise which the panel do have) makes NICE look foolish | See FAD section 4.5 in the technology appraisals process guide for information on the Appraisal Committee. |

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| | | and will seriously undermine their credibility. Whatever else you do, PLEASE be more more moderate in your recommendations - ther MUST be room for clinical freedom of some sort here. I have patients with one remaining conduit, left main disease, v poor LV function and surgical rejects. I will have to explain to them and their relatives why I am placing an old fashioned stent in their heart. And the main reason will be your recommendations, if you are noit careful. I am not sure that some of them will not want to take legal action. | |
| NHS Professional 50 | 1 | This decision will lead to a significant reduction in the quality of care for a large number of patients with coronary heart disease. Patients will be forced to have cardiac surgery (Coronary artery bypass surgery) rather than coronary angioplasty because the risk of restenosis will be to high with bare metal stents. This will include all diabetic patients and patients with disease in proximal lad, bifurcation disease,osteal right coronary, vessels , 3mm, lesions longer than 18 mm, more than single vessel or single lesion disease, vein graft disease. It will lead to more patients having not just repeat procedures but repeat consultations and admissions in primary, secondary and tertiary care. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 50 | 2 | The risk of stent thrombosis has been exagerated and poorly measured - there needs to be more data collection and analysis before any firm conclusions can be reached | Comment noted. |
| NHS Professional 50 | 3 | very few if any centres in the UK pay the list price --- the quoted price is about twice what we actually pay for any of the drug eluting stents. This makes your economic predictions flawed and in favour of bare metal stents | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 50 | 4 | You have used only the Liverpool model - this grossly underestimates TVR for the bare metal stent - even from data you have quoted earlier in your article -- it is illogical to qote a TVR rate of 10-25% for bare | The Appraisal Committee did not accept all the parameters and |

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| | | metal stents and then accept a figure of 7-9% for your economic model ! | assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 50 | 6 | Everyone agree with long term follow up and proper trials for newer DES. However to ask for more data on established DES is illogical as we have the trial data already - you have quoted a mass of data in this area already. | Comment noted. |
| NHS Professional 51 | 1 | I was stunned to read this. My understanding of the literature is that restenosis still occurs with BMS in approx. 1 in 10 cases (particularly in small vessels < 3mm) and more commonly in diabetics, whereas the risk of ISR in DES is < 1 in 20. Whilst there is a small is of late stent thrombosis (0.06 per annum) and combination Rx with aspirin and clopidogrel is not without risk, I believe the benefit outweighs the risk in selected cases: I personally currently use DES in small vessels (<3mm), in patients with ISR, in CTOs and in some diabetics with long lesions. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 51 | 2 | Very good, succinct summary | Comment noted. |
| NHS Professional 51 | 3 | Factual | Comment noted. |
| NHS Professional 51 | 4 | Great review of the data. I try to read some of the literature and attend BCS and BCIS meetings. I am pleased to note that my understanding of the data/take home message is consistent with your review i.e. that DES are superior to BMS in selected cases (partic small vessels) mainly wrt restenosis and the need for TLR. I confess I find the cost effectiveness data difficult and hard to deny but hope not all our practice is driven by cost per QALY. I am convinced of the clinical | Comments noted. |

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| | | benefits of DES in selected patients and hope the responses from BCS and BCIS will be constructive and effect a revision of your recommendations. | |
| NHS Professional 51 | 5 | Fair. | Comment noted. |
| NHS Professional 51 | 6 | Agreed | Comment noted. |
| NHS Professional 51 | 7 | Haven't revisited this area. Accept stents required for the majority of PCI. | Comment noted. |
| NHS Professional 51 | 8 | OK | Comment noted. |
| NHS Professional 52 | 1 | I believe the data on which this decision was reached is flawed, in particular the data from The Liverpool group has serious problems that have been highlighted by the British Cardiac Intervention Society (BCIS). I agree with the the British Cardiac Society/British Cardiovascular Intervention Society response and urge NICE to reconsider its preliminary guidance. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 52 | 4 | I do not believe NICE guidance should be based on local audit data instead it should take into account published randomised controlled trial data which are internationally recognised. | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, |

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| | | | 4.3.13 and 4.3.14. |
| NHS Professional 53 | 1 | Disagree entirely with this recommendation | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 53 | 3 | List prices are not accurate reflections of ""real world" prices paid by institutions. | The Institute has received data from PASA for 2007/08 see FAD sections 3.6. |
| NHS Professional 53 | 4 | The data supports use of DES in small vessels, long lesions and diabetics. The cost-effectiveness argument is not valid as it is based on flawed data. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 54 | 1 | Many will make relevant comments regarding the cost-benefit analysis and in particular the use of a small (Liverpool CTC) audit on which to base the cost-analysis calculations. An additional issue is that re-stenosis with bare-metal stents, contrary to common perception, is rarely a benign predictable phenomenon. There are several "real world" reports in Europe and the US concluding that around a third of re-stenosis episodes present with unstable angina or myocardial infarction. While considering the cost-benefit issues it should be remembered that these events are not benign and have adverse impact in terms of both morbidity, ventricular function and medium to long-term mortality- the latter may not be adequately detected by the short-term follow-up of most clinical trials. See Chen MS et al. Am Heart J 2006 Jun;151(6):1260-4 among several studies on the acuity of re-stenosis presentation. | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee was aware of the views expressed by consultees and commentators about the CTC database. Therefore it did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 55 | 2 | No comment | Comment noted. |
| NHS Professional | 3 | No comment | Comment noted. |

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| NHS Professional 55 | 4 | I am puzzled why the committee has paid so much attention to the Liverpool audit. Is the data robust? Has it been carfully scrutinised in the manner of mostRCT"s? The BMS revasc rate of 7.43% is incredibly low in a real world setting and less than most cardiologists observe in practice. It is very unlikely that BMS restenosis rates are lower in real world practice than in RCT"s unless of course Liverpool have a very aggressive DES policy and restrict BMS to lesions with the lowest rates of restenosis. If this were the case, cost-effectiveness analysis based on this data would be flawed. The cost analysis is highly dependent on the price premium which at 600 is well above that in our institution and I suspect the great majority of centres undertaking PCI in 2007. Perhaps a better conclusion would be for the NHS to get better organised into a national purchasing and distribution policy (we are bigger and hence more powerful than any HMO). My other comments are in my earlier response. You are wide of the mark in coming to your conclusion. Implementaion of such flawed advice would greatly change patterns of PCI across the UK,increase repeat procedures and take us back a decade. | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Institute received 2007/08 data from PASA see FAD section 3.6. |
| NHS Professional 55 | 6 | As above why has the NHS not been more proactive in developing a national purchasing policy for its patients? | Comment noted. |
| NHS Professional 55 | 8 | How can NICE justify having so little revascularisation expertise on its advisory panel? | See FAD section 4.5 in the technology appraisals process guide for information on the Appraisal Committee. |
| NHS Professional 56 | 1 | I refer you to the BCS and BCIS response to the assessment report supplement 3 and 4. I support their conclusion that there is abundant evidence on the clinical and cost effectiveness of DES. | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| NHS Professional 56 | 2 | No comment | Comment noted. |
| NHS Professional 56 | 3 | Most units have negotiated much lower DES and BMS prices. Real-world figures need to be used if cost-effectiveness is to be measured meaningfully | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 56 | 4 | The BCS and BCIS response challenges (correctly in my view) many of the figures above. | The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 56 | 5 | No comment | Comment noted. |
| NHS Professional 56 | 6 | The cardiology fraternity has behaved impeccably in intrducing new technology once it has been proved in robust clinical trials. ""Fine-tuning"" research as above is constantly being carried out in PCI centres of excellence | Comment noted. |
| NHS Professional 56 | 7 | No comment | Comment noted. |
| NHS Professional 56 | 8 | No comment | Comment noted. |
| NHS Professional 57 | 1 | This seems to be broad statement that does not recognise the immense value of these types of stents in well defined patient groups which wil affect clinical outcomes for patients and limit the choice of stents available to do the best job. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 57 | 2 | Need to be mindful that many of these patients have had NSTEMI and therefore NICE guidelines indicate that they should be on clopidrogel fro 12 months for the NSTEMI irrespective of stent insertion. The dramatic increase in stenting has occured in the ACS/NSTEMI group. | See FAD section 4.3.10. |
| NHS Professional | 4 | The conclusion is flawed as it hinges on the published costs of these | The Institute has received |

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| 57 | | stents. I am not aware of any units paying the higher tarriffs. As there is consistent evidence that DES are superior to BMS in the appropriate patient groups. One needs to look at at a national procurement process which would allow these stents that have made significant inroads into the achilles heal of PCI to be used appropriately | data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 58 | 1 | I am extremely concerned for the welbeing of my patients if this recommendation is passed. I believe that DES should be used judiciously in a targeted manner to reduce the risk of in stent restenosis (ISRS)and in no way think that this technology is suitable for all patients. However in approximately 40-50% of cases I think they undoubtedly improve outcome. Before the introduction of DES, clinically important ISRS was seen in a large centre such as ours commonly each week, it is now seen on a monthly basis since the development of effective DES technology. I have no doubt tha there will be a huge increase in repeat procedures for ISRS if these draft guidelines are adopted. I have a concern that we in the UK will have to stop treating complex coronary disease and will have to submit many patients with important serious co-morbidities to CABG surgery. Morover a small but significant part of my practice is in treating patients turned down for CABG by surgeons because of excess surgical risk. I think that in the absense of DES I will be unable to offer this growing group of patients percutaneous therapy and leave them with a poor quality of life/multiple admissions etc etc | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 58 | 2 | No comment | Comment noted. |
| NHS Professional 58 | 3 | These prices used for your NICE cost effectiveness analysis are wildly inaccurate. We currently pay approx250 for a BMS and 600-690 for a DES. I strongly suspect that if the analysis is re run with these real | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |

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| | | world NHS prices, that the conclusions would change. | |
| NHS Professional 58 | 4 | 1) I really don`t understand how the assessment committee have used such erroneous costing information. The cost of DES has fallen hugely since the time used for the assessment (2004-5 and May/June 2005) This fact will be bourne out by a discussion with any reasonably proficient NHS procurement department. Our current DES cost is 600-690 and BMS cost approx 250. This is very different to those quoted in the analyses and I`m sure will effect the outcomes significantly. 2)I am extremely confused by the committees reliance on the small, non peer reviewed single unit audit from Liverpool. At best, the insistence (implied) by basing so much of the analysis on this one region analysis does not show NICE in a very good light. It is surely clear that this type of contoversial small number, non peer reviewed data is exactly the sort of evidence that NICE should not rely on. The assessment group low BMS restenosis rate is not what we see (and saw) in the real world (or many randomised controlled trials). The truly remarkable results of DES on ISRS and TVR appear to have been described adequately above, but then weight is unduly given back to the Liverpool audit data. | The Institute has received data from PASA for 2007/08 see FAD section 3.6.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 58 | 5 | No Comment. Implementation of this assessment will, in my view have a rapid negative effect on patient care and also on the NHS cost of treating angina refractory to medical therapy. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 58 | 6 | 6.1 As outlined in FAD sections 4 there is now almost no debate as to whether the available SES and PES are clinically effective. Future trials will not change this fact 6.5 It appears that recommendations gleaned from the BCIS dataset ( a very well run data collection system) is not being given proper weight in the assessment groups analysis and thereforwe I am sceptical as to whether further registry data will be appropriately assessed. | The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |

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| NHS Professional 58 | 7 | No comment | Comment noted. |
| NHS Professional 58 | 8 | No comment | Comment noted. |
| NHS Professional 59 | 1 | Given how this technology has revolutionised practice, I find it difficult to believe that removing it from availability at this stage will be possible. The consequence will have to be an increase in numbers of patients referred for CABG, is the system ready for this? | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 59 | 2 | The majority of PCI is now performed for acute coronary syndromes, even where BMS are used Clopidogrel is recommended for 1 year, thus cost -efficacy calculations that follow need to recognise that the extension of clopidogrel treatment to 1 year has an insignificant net impact on cost. | See FAD section 4.3.10. |
| NHS Professional 59 | 3 | We get DES for 500, thus the premium will be around 300, and where multiple stents are used it is not uncommon for one or more of these to be a BMS. I am sure that any survey of interventional centres will find the same. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 59 | 4 | I presume these calculations include extra cost for the supposed increased clopidogrel usage, this is not appropriate in light of current practice. I would agree that 11% repeat intervention is correct. However, the problem with mortality statements, is that none of the studies have been done in "real-life" high risk patients, so assuming no mortality benefit may be incorrect. The absence of an effect on MI is the same as in CABG, the mortality effect is only through overall perfusion maintainence, thus in high risk populations even asymptomatic restenosis may lead to increased mortality. No evidence either way. But good reasons to worry that lack of data is being equated with lack of benefit. Has the compromise suggestion of no more than one planned DES per patient in any one year been | Comments noted, regarding clopidogrel use see FAD section 4.3.10. |

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| | | considered? | |
| NHS Professional 59 | 6 | Given | Comment noted. |
| NHS Professional 59 | 7 | Not seen yet | Comment noted. |
| NHS Professional 59 | 8 | I beileve that if proposed guidance implemented, there will be a clamour for a very early review. | The review date has been changed. |
| NHS Professional 60 | 1 | 1. NICE has approached this topic in the manner of a drug therapy review when alternatives are available and cost efficacy is paramount. It should be approached as an interventional procedure guidance where effectiveness is the major factor. An example is the guidance on carotid stenting (IPG 191). Drug eluting stent intervention is 95% effective and bare metal stenting is 89% effective using the figures in this appraisal. Interventional procedure guidance would then use the cost efficacy figures to refine the indications for drug eluting stents. A clear one, which is not considered in this appraisal, is the management of bare metal stent restenosis which is going to occur at least 8,000 time a year in the UK if bare metal stenting is always used first time around. But there will be others (long lesions in small vessels using current stent costs??). To say that a technique, which can be readily performed in many UK hospitals and clearly produces a better result overall, is never cost effective in any patient seems very unlikely. NICE should be aiming to encourage appropriate use of proven technologies, and not to ban them. | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>Technology appraisals consider the clinical and cost-effectiveness of technologies. |
| NHS Professional 60 | 3 | I would doubt that anybody in the NHS pays these prices. I would estimate that most large units are paying less than 50% of the list prices. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 60 | 4 | 1. Stent prices are out of date. 2. The costs should also include the costs associated with treating restenosis - including outpatient visits, | The Institute has received data from PASA for 2007/08 |

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| | | repeat angiography, CABG, and repeat stenting (usually with one or more drug eluting stents which will be at full list price due to low volume use). | see FAD section 3.6. |
| NHS Professional 60 | 5 | My rational arguments are in section 1. My gut feeling is that NICE will make a fool of itself if it tries to make the UK the only national health service in a developed country not using drug eluting stents. There will also be a political dimension when patients learn that they can get a better procedure in the private sector or if they go to France. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 61 | 1 | This is an extraordinary conclusion to come to given the large number of randomised clinical trials which confirm the value of DES compared to BMS. Restenosis of 3-4% with DES compared to 13-15% with BMS. This means patients avoid a second procedure and the risks associated with it. Diabetics and patients with small vessels and long lesions (all groups with increased risk) can now be successfully treated percutaneously with DES rather than having to undergo a more hazardous and more expensive CABG, with its increased length of hospital stay. This recommendation is completely at odds with world wide established clinical practice in Europe and US, and against international guidelines | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 61 | 2 | This acknowledges the greater risk of restenosis in diabetics, small vessels, long lesions, total occlusions and therefore means that the NICE committee is happy to consign this group of patients to inferior treatment and repeat procedures with their inherent risks. It is far better to treat different people with the scarce resources of the NHS rather than the same people twice! Patients with small vessels, long lesions, diabetes make up 45-55% of all patients undergoing PCI | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 61 | 3 | The list price bears little relation to the true costs that hospitals pay for these devices in the UK today | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |

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| NHS Professional 61 | 4 | It is astonishing that the committee should place such weight on the findings of a small single-centre audit in the face of evidence from a raft of RCT whose sole purpose is to try to eliminate bias and findings due to chance. The RCTs are peer reviewed, independently monitored and contain large patient numbers. The committe has generally accepted in the body of the document, the increased efficacy of BMS for diabetics, long lesions and small vessels but has then taken arbitrary figures for the cost benefit analysis. RCT suggest benefit of DES over BMS is 70% but the committee has chosen to use 55% (where does this come from). They choose to ignore the baseline BMS rate from RCT and BASKET/Scottish data of 13% and instead use the arbitrary 11%. Cost effective analyses are often very sensitive to such differences. It would make much more sense to use properly derived numbers from well conducted trials rather than numbers selected on an arbitrary basis. The price premium for DES is far too high and takes no account of discounts negotiated locally. Cost price Cypher 937, Taxus 815, Committee average BMS price 600 = Max premium 337 for DES | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 61 | 5 | To date I have been an enthusiastic supporter of NICE but this recommendation flies in the face of all the randomised data and gives extraordinary weight to a small local audit (Liverpool. If implemented it will result in patients in England and Wales receiving inferior treatment to those in Scotland, will put UK intervention back 10yrs and mean that patients with diabetes, small vessels and long lesions are treated poorly. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 61 | 6 | All cardiologists support the continuation of clinical trials to refine and improve treatment and inform the provision of guidelines. The fact that such data are being ignored in this case is astonishing | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| NHS Professional 61 | 7 | Nice supported stents in in diabetics, small vessels and long lesions in its 2003 guidance. The body of the document above acknowledges that DES are a considerable improvement on BMS in these patient groups and yet the committe does not endorse their use. It is very difficult to understand the rationale for this conclusion | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 61 | 8 | The speed of development of technology in Interventional Cardiology is so great that review should be considered sooner. | The review date has been changed. |
| NHS Professional 62 | 1 | This demonstrates a total failure to recognise the advances in interventional cardiology that have been made since the development of drug eluting stents. These devices have slashed re-intervention rates and in real world practice hugely expanded the number of patients who can be effectively treated with PCI rather than surgery. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 62 | 3 | The cost of stents is variable and dependent on local negotiation. We pay roughly 900 for each DES in the institution where I work. Using higher prices will clearly adversely affect the cost benefit analysis. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 62 | 4 | Price premium is relative. The bare metal stents we currently use are free as they are supplied by the same company from which we purchase DES. Any company could rapidly reduce the price premium of DES by increasing the price of BMS. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. See FAD section 4.3.14 for Committee's consideration of price of BMS. |
| NHS Professional 63 | 1 | This is quite ridiculous and against the evidence base. Many patients are having procedures performed where there is a need to minimise restenosis particularly as there is no alternative effective strategy, for example, diabetics, patients with small arteries, extensive stenoses, post CABG (increasingly commmon), LMS, Bifurcations etc etc. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 63 | 2 | Why has Scottish data not been included when there is a major comprehensive database available? Use of DES has now started to fall and in Scotland will probably balance at c 50%. there are many | Comments noted. The Appraisal Committee considered BCIS's |

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| | | reasons for this but it is essentially a balance between major advantage and risk/expense. | assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 63 | 3 | Why on earth have dexamethasone stents been included? I thought no body used them as they were ineffective. Whsy was the Endeavor stent not included? Seems a major ommision. The stent prices bear no resemblance to what we pay and they are about to get even cheaper. Average cost in Scotland c 650 each. | All stents with a CE marking at by February 2006 were included in this appraisal. The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 63 | 4 | Why is there an obsession with death and MI? What is most important to a patient is freedom from symptoms. Given that CABG only significantly prolongs life in very limited circumstances are NICE going to state that it should not be used outwith of these limitations? | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 63 | 5 | This is a very flawed assessment which could set back interventional cardiology for years. There are good reasons why we are still not driving around in model T Fords! In particular the cost-effectiveness data should be for efficiacy of relief of symptoms not reduced mortality etc which has never been claimed for elective procedures. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 63 | 8 | Needs to be rethought which may need more time. | The review date has been changed. |
| NHS Professional 64 | 1 | I cannot understand the rationale to come to the conclusion that drug-eluting stents are not recommended for use in PCI in coronary artery disease. I think this recommendation by NICE is bad for patients with coronary artery disease. Use of drug eluting stents within the approved indications should be encouraged. If I was a patient I would want a drug eluting stent! | DESs are recommended in circumstances outlined in FAD section 1.1. |
| Healthcare other 1 | 4 | There is a large discrepancy in the cost-effectiveness data from the Liverpool cardiothoracic centre audit and those provided by the companies (admittedly they have a conflict of interest and their data | The Appraisal Committee did not accept all the parameters and |

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| | | should be scrutinized carefully) and the peer-reviewed published literature. This questions the validity of the Liverpool figures, which appear to have carried much weight in the final recommendations. Without this population, the cost-effectiveness figures look far more attractive and would have been at acceptable levels, at least in certain subgroups. | assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 65 | 1 | This guidance is absolutely absurd and flies in the face of contemporary interventional practice worldwide. It will effectively restrict PCI to single vessel disease, lead to a massive increase in referral for CABG (with its overwhelming effect on NHS resources) and leave patients with complex coronary disease (now a majority in our ageing population) untreatable. It will effectively set the UK back 5-10 years. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 65 | 2 | Our PCI population in the UK is elderly, often with complex coronary disease. Many of these patients are not fit for CABG and require 2/3 vessel revascularisation. Although use of DES is sometimes "off-label" in this setting, these patients are often impossible to treat otherwise. They will certainly be impossible to treat with BMS, given the excessive rate of restenosis. Many will therefore be left with intractable angina. | Comments noted. DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 65 | 3 | None of these prices are anything near reality. I have recently overseen the tender for DES for a large London teaching hospital and we have paid well under 50% of all prices listed above. This surely skews all cost-effectiveness arguments. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional | 4 | A number of things should be recognised: 1) Elective PCI does not | DESs are recommended in |

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| 65 | | (never has) been shown to alter mortality whether it with BMS or DES; so the findings that DES offer no mortality benefit over BMS is irrelevant 2) In-stent restenosis is not benign - it carries a significant risk at presentation as does a repeat procedure - which can only be performed with a DES (now that the less effective brachytherapy is defunct) 3) Late stent thrombosis occurs with BMS and the rate of this is unknown 4) All well-performed randomised, controlled trials have shown an unequivocal advantage of DES over BMS. Quite why so much emphasis is being put on a single centre (Liverpool) database is completely baffling. | circumstances outlined in FAD sections 1.1. The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 65 | 6 | Studies of DES vs BMS have already been done and will not be done again | Comment noted. |
| NHS Professional 65 | 8 | This is too far in advance in such a rapidly changing field | The review date has been changed. |
| NHS Professional 66 | 1 | These recommendations are ridiculous. They are unfounded and without any scientific basis. The data that the recommendation is based upon are fundamentally flawed. This evaluation should be abandoned immediately. The cost benefit analysis should be repeated by several independent institutions, who use the available scientific evidence on which to found their conclusions. I note that this evidence-based approach was used for the cost-benefit analysis on the use of clopidogrel in acute coronary syndromes and cannot understand why NICE have ignored this approach for the current appraisal. | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional | 3 | These prices are not what most NHS institutions currently pay for drug | The Institute has received |

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| 66 | | eluting stents | data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 66 | 4 | The assumptions in the cost-benefit analysis are not based on scientific evidence. This analysis is fundamentally flawed and should not be considered as part of the appraisal. | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 66 | 8 | The current appraisal should be abandoned and the cost-benefit analysis should be repeated by several independent institutions before this guidance is adopted to the detriment of our patients. | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 67 | 1 | I believe this recommendation is wholly wrong. Drug-eluting stents have revolutionised the efficacy of percutaneous coronary intervention, reducing the risk of renarrowing of stents, such that patients require a second angioplasty procedure, bypass surgery, or recurrent angina which cannot be treated, by 75%. They have also | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | enabled the effective treatment of much more complex and advanced coronary artery disease with good outcomes. Such disease would previously have required bypass surgery, a treatment which has higher morbidity and mortality, is less acceptable to patients, and is more expensive. In some cases bypass surgery would not be possible and patients would be left with unacceptable symptoms. Drug-eluting stents are standard accepted treatment across the world, used in 25% to 90% of patients in different countries. There are no developed countries which do not use drug-eluting stents. It is inconceivable that the UK should choose to make an accepted, enormously effective, treatment such as this unavailable, in conflict with the practice of the entirety of the rest of the developed world. It is essential for patients that drug-eluting stents are available. | |
| NHS Professional 67 | 2 | No comments | Comment noted. |
| NHS Professional 67 | 3 | CoStar and Janus have been withdrawn from the market The prices actually paid by NHS Trusts are much lower than the list prices. In our institution we pay c. 600 for Cypher Select, and c. 500 for Xience V. | Comments noted. FAD section 3.4 has been amended. Information suggests that Janus is still available.<br>The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 67 | 4 | I believe this analysis and interpretation of the evidence is flawed. Costs are wrong. In our institution we pay 600 for Cypher Select, 500 for Xience V. We pay 200 for Vision and 300 for Driver. The average premium for DES is therefore 300. The use of a small local registry as the main source of efficacy data for the cost-effectiveness analysis is wholly appropriate. All clinician scientists accept that randomised | The Institute has received data from PASA for 2007/08 see FAD section 3.6.<br><br>The Appraisal Committee did not accept all the |

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| | | controlled trial data are more robust and appropriate. The repeat revascularisation rates seen in this registry are much lower than in any trial and virtually any other registry. The reduction in revascularisation with drug-eluting stents used in the analysis is lower than reported in almost all the randomised trials. Ten previous cost-efficacy analyses of drug-eluting stents are described. All report vastly lower costs in QALYS for drug-eluting stents. Why does NICE base its recommendations on its own analysis based on a small registry which is logarithmically different in its conclusions to all the other analyses. Does NICE believe these are all wrong and its analysis is correct? | parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 67 | 5 | No comments | Comment noted. |
| NHS Professional 67 | 6 | No comments | Comment noted. |
| NHS Professional 67 | 7 | No comments | Comment noted. |
| NHS Professional 67 | 8 | No comments | Comment noted. |
| Other | 1 | The BHF is concerned and disappointed by the preliminary recommendation of the Appraisal Committee that no drug eluting stents (DES) should be used for patients undergoing percutaneous angioplasty for coronary artery disease. The recommendation denies any discretion to experienced interventionists when dealing with high risk patients/lesions and assumes no place for clinical judgement in complex interventions. In our view this is misguided and will inevitably lead to some high risk patients having to undergo a repeat procedure with its associated risks and anxieties. We concede that whilst many UK cardiologists have followed current guidelines and confined the | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, |

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| | | use of DES to those patients at highest risk of in-stent stenosis, many have not, at huge cost to the NHS. We therefore agree with the Committee that DES should currently not be used in all patients. However, the evidence that DES reduce in-stent stenosis and the need for a repeat procedure is incontrovertible, as acknowledged by the Committee. The issues therefore are around how many patients would benefit from a DES and at what cost. The BHF is concerned about the Committees assessment of both. We accept the committees view that angiographic assessment of stenosis over estimates the clinical need for re-intervention. However, we strongly disagree that observational experience from a single centre, with all its potential flaws and biases, should be used to inform cost effectiveness calculations. If data from randomised controlled trials are to be tempered by real world experience, then we believe that national, rather than single centre, registers should be the minimum standard, and where such data do not exist assessments must be made on the basis of peer reviewed, randomised clinical trial data. The Committees cost effectiveness calculations are highly sensitive to the cost differential between bare metal and DES. We see this as a mechanism for negotiating a better deal with the manufacturers rather than a mechanism to deny high-risk patients superior treatments. A recommendation that DES can only be used if they are provided at below a recommended threshold cost would be more helpful to commissioners, cardiologists and their patients than the recommendation not to use DES at all. Finally, we would argue that, whilst coronary intervention is a relatively safe and non traumatic experience, there are individuals in whom, usually because of medical co-morbidities, it can be dangerous and/or traumatic. Cardiologists would be failing their patients if they did not, in such circumstances, do everything they could to avoid the need for a second procedure. The | 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |

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| | | current preliminary recommendation would deny them this option. We strongly urge the Committee to reconsider its current recommendation and instead to produce a recommendation that allows the operator the discretion to use DES in patients at highest risk of a repeat procedure and one that encourages commissioners and industry to work together to reduce the cost of this technology to the NHS. | |
| NHS Professional 68 | 1 | This is a catastrophically erroneous conclusion that brings the NICE process into disrepute. The methodology used by the economic analysers is fundamentally flawed. The international community will conclude that the NICE process should no longer be seen as a sensible guide to the evaluation of new technologies. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 68 | 2 | It is the British Cardiovascular Intervention Society, not the British Cardiac Intervention Society. Previous NICE recommendations supported the use of DES, and although the initial assessment was that about 30% of cases would be treated with DES, in fact, even at that time an analysis of my own unit"s database suggested that DES technology would be required in ~60% of cases according to previous recommendations. Now that this has been seen in clinical practice throughout the UK, the new NICE recommendations are completely contrary to their previous recommendations. This must be a unique situation, which would be laughable if the results of this analysis were not so perverse. This assessment will seriously reduce the credibility of the NICE process. To be asked to reduce current clinical activity from a 50-60% usage to zero is absolutely extraordinary - and completely unjustified. | Comments noted; this has been amended accordingly.<br><br>DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 68 | 3 | Agreed - but list prices are not relevant to local practice. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional | 4 | To allow the Assessment Group"s analysis to carry more weight than | DESs are recommended in |

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| 68 | | all of the other analyses quoted, all of which come up with a different conclusion, is quite extraordinary, particularly as it is based on a flawed modelling exercise rather than through the results of randomised trials. The major flaws of the Assessment Group"s methodology has been fully outlined by the joint BCS/BCIS response. The knock-on effects of this current process are so serious that I cannot believe that the NICE committee fully understand them. The use of DES has allowed us to treat more patients with stent technology - cases that would otherwise have been referred for surgery. If clinicians are not allowed to use this highly effective technology, then referral rates for CABG will rise exponentially, waiting lists will rise exponentially, government targets for times to treatment will not be met, and all interventional cath labs in E&W will become financial liabilities in UK Trusts, primarily because clinicians will be ethically driven to use superior technology and will ignore the NICE guidelines when clinically appropriate. | circumstances outlined in FAD section 1.1.<br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 68 | 5 | It will be interesting to see what the Secretary of State concludes when he realises that the NICE Committee on this occasion has brought the whole NICE process into international disrepute. | Comment noted. |
| NHS Professional 68 | 6 | Further research is always needed, but we should not be repeating studies to try and fit a flawed model"s conclusions. It should be noted by the Committee that there are no randomised studies that prove that newer BMS are better than those used in the randomised trials of DES vs BMS performed to date. | Comments noted. |
| NHS Professional 68 | 7 | This document does not adequately outline why the methodology used in the previous review of DES was thought appropriate at the time but now, apparently, is not. The methodology used in the former review was far more robust than in the current assessment, and yet these different methodologies are not highlighted or discussed. Not | DESs are recommended in circumstances outlined in FAD section 1.1.<br>The Appraisal Committee did not accept all the |

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| | | only is this most confusing for interventional cardiologists, but it will be impossible for patients and healthcare providers of all types to understand this complete U-turn if this is not done. | parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 68 | 8 | The threat to NICE is very very real - unless this recommendation is changed, then the Institute will be discredited. This committee will on its own undo all of the good work that has preceded it. The medical profession will cease to participate in a process which is so utterly flawed. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 69 | 1 | Dear Sir As a Consultant Cardiologist regularly performing coronary angioplasty I am astounded & dismayed by this preliminary guidance on drug eluting stents. I entirely agree with the evidence submitted by BCIS & the BCS. There is a wealth of randomized controlled trial data showing the very significant advantages of DES in reducing instent restenosis in patients with small vessels,long narrowings & in diabetics. These pts have a high risk of renarrowing within bare metal stents which puts them at increased risk of cardiovascular events & repeat PCI procedures-which also carries a risk. It appears that the figures used in your cost effectiveness calculations are not up-to-date (eg overestimation of DES price) & I urge NICE to reconsider this preliminary guidance. | DESs are recommended in circumstances outlined in FAD section 1.1.<br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |

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| | | | The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 70 | 3 | I am one of the authors of the Liverpool data. I would like to point out that in reality these costs are inaccurate. We have been paying 700 for all DES in 2006/2007 and the prices we pay from the recent tender is 450-500 (as above without VAT). There has not been a proportionate decrease in BMS price now 250-300. This clearly effects cost effectiveness comparisons and fits with our recommendations of a 200 diference to achieve cost effecetiveness. this relates to 4.2.11 below. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 70 | 4 | As one of the authors of the paper from Liverpool on cost effectiveness of DES I am dismayed at the over reliance on our essentially local audit data. There has been considerable and in some cases justified criticism of the follow up data and the variability of approach to re-do PCI. While this reflects the real world the main message was that the cost differential needed to reduce (to 200) and as in my comment above this has been achieved. If the analysis was repeated with present pricing it would in my view undoubtedly demonstrate cost effectiveness equivalence. Also from the same data we have presented (Glasgow BCS) and are about to submit for publication a highly significant mortality benefit in favour of DES which was not evaluated in the initial paper. | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 71 | 1 | A complete withdrawal of DES will be harmful for a significant number of patients, namely the elderly and diabetics and patient with in stent | DESs are recommended in circumstances outlined in |

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| | | restenosis. While younger patients may have alternative revascularisation by CABG the elderly, with more co-morbidities often cannot. Clinical trial have not included such patients who represent a greater clinical and financial burden when it comes to recurrent restennosis after bare metal stenting. | FAD section 1.1. |
| NHS Professional 71 | 2 | The use of DES is falling nationally and world wide for the first time since 2003 in response to both clinical concerns about late thrombosis and (in this country)financial pressure with full application of tariff. Current figure for DES use in my department is 5o% (from 80% 6 months ago). It should be possible for the committee to obtain latest figures nationally for consideration. Clincians do respond sensibly given the right guidance. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 71 | 3 | The price premium for DES is certain to fall below the 300 mark in the very near future as more competitors enter the market. For our area it has fallen from 600 to 350 in the last 2 years! | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 71 | 4 | Since it has been accepted by the Committee that some sub-groups are of higher risk from restenosis and would therefore be cost effective to treat with DES it would be illogical to have a complete band for its use. It would be better and safer for patients to restrict its use to certain situations, with more stringent restrictions than the 2003 guidance, in order to achieve cost effectiveness. An example would be to restrict DES use for restenosis of a bare metalk stent, or in patients clearly not suitable for CABG on account of age or co-morbidities. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 71 | 6 | Since the consideration is mainly on cost effectiveness rather than scientific validity, more clinical trials are unlikely to further the arguement one way or another. Like-wise long term studies can only be seen as delaying tactics as most of the parameters are not time sensitive beyond 2 years. | Comments noted. DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional | 8 | Considering the likely change in price premium for DES and the | The review date has been |

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| 71 | | potential adverse clinical outcome in some of the at risk groups as a result of this recommendation, it would be irresponsible to delay a further review beyond 2009. | changed. |
| NHS Professional 72 | 1 | This blanket ban is draconian and an affront to the clinical judgement of the medical staff who have to face patients with coronary artery disease on a daily basis. While I do not advocate a ""drug-eluting stent for all"" policy, the accumulated evidence base shows substantial reductions in restenosis, and more importantly repeat revascularisation, in many complex case scenarios when DES are used rather than bare metal stents. A direct consequence of this policy will be an increase in the number of patients referred for coronary artery bypass surgery (a considerably more expensive, invasive and dangerous procedure as compared to PCI) which seems to fly in the face of the cost-effectiveness argument underlying this Guidance Statement. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 72 | 3 | The Institute is undoubtedly well aware that the prices actually paid for the stents listed above in NHS practice are substantially less than listed above | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 72 | 4 | 1) I am intrigued by the Assessment Group"s ignorance of the 2 randomised trials comparing DES with brachytherapy for the treatment of BMS restenosis (SISR study, Holmes DR Jr et al, JAMA 2006;295:1264-73 and TAXUS V ISR, Stone GW et al, JAMA 2006;295:1253-63). If this guidance is implemented we are going to be seeing a lot more BMS restenosis. How are patients going to be treated if DES are not allowed to be used in the treatment of patients with CAD? 2) My major concern with the models used is the apparent lack of incorporation of the cost of CABG in the cost-effectiveness analysis. As for point (1), BMS restenosis will have to be treated with CABG (brachytherapy having been withdrawn from clinical practice) | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | while many patients with lesions that are currently treated with DES (according to existing NICE guidance) will almost certainly be referred for CABG in the 1st place. Has the additional cost of CABG over PCI been factored into the models? | |
| NHS Professional 73 | 1 | To place a blanket veto on use of DES in patients with CAD is both absurd and unjustifiable. Used in selected patients they are safe and cost effective. No other health organistation in the world has taken such a stance and to do so flies in the face of enormous evidence and clinical need. The data on whic NICE are basing this judgement are deeply flawed. The cost benefit analysis needs to be based om current prices for DES which have dropped dramatically as a result of competition. Also, to tar all DES with the same brush with respect to safety concerns is again unjustifiable. The major data exists for just 2 DES, however newer stents with different better safety profiles (such as the Endeavor stent) are now available with growing evidence to support their use. A complete ban on the use of DES will create a large body of patients who will now require bypass surgery. The system will not be able to cope with this demand and many patients will suffer in consequence. | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Institute has received 2007/08 data from PASA see FAD section 3.6. |
| NHS Professional 74 | 2 | The reduction in mortality from CHD and the ageing of the population has increased the number of individuals requiring treatment, including , coronary intervention at multiple stages during thier life span. Interventionists are also treating an increasing number of patients who have had previous coronary artery bypass graft (CABG) surgery, a group presenting uniquely complex clinical and technical challenges. We are also faced with providing treatment for patients deemed not suitable for CABG for reasons of co-morbidity or excessive surgical risk. For all these reasons interventionists need a full armamentarium to provide this type of patient with a single procedure with the best | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | possibility of a good outcome without the need for repeat procedures. | |
| NHS Professional 74 | 3 | While I recognise that there are considerable R+D costa for companies in bringing this technology to the marketplace, and also strongly believe that Cardiologists need access to DES for specific indications, I also feel that there is an onus on the companies to work with those involved in delivering healthcare to ensure that thier technologies are affordable in an NHS environment. The various cost effectivenss models are very sensitive to the so called ""premium"" of DES, and perhaps this should prompt the companies to re-evaluate their prices. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 74 | 4 | It would apppear that the data from a single centre audit has been taken as the basis of the cost effectiveness evaluation, rather than data from the wider published literature, including randomised trials and large clincial databases. The reason for this is not clear, and leaves the whole exercise entirely lacking robustness. The model not not include the costs of the additional CABG procedures that will required if interventionists do not have access to DES for treating small vessles and very long lesions. | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 74 | 6 | If DES are no longer available for NHS use, then new registrary data as per 6.5, will not become available. | Comment noted. DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 74 | 8 | The rate of technology evolution in Cardiology is extremely rapid, so that by 2011 it is likely that there will have been a number of | The review date has been changed. |

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| | | incremetal changes in stent-based technology, so that by that time the proposed guidance review is completed the NHS will have fallen unacceptably behind the rest of the world in what we deliver to our patients. | |
| NHS Professional 75 | 1 | In 2003 NICE guidance indicated that DES were recommended in small vessels and long lesions. The Interventional community and the rest of the world thought this was a reasoned view. To completely reverse this decision in 2007, based on nothing other than local poor audit data would be ludicrous and would put the whole NICE process into disrepute. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 75 | 2 | Percutaneous coronary intervention is the dominant mode of revascularisation in the UK and the rest of the world. A decision to not approve DES would force clinicians to refer patients for inappropriate coronary artery bypass surgery or to use bare metal stents in patients who at high risk of the need for repeat revascularisation. Both would result in unnecessary harm to our patients. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 75 | 3 | I do not understand why the list price of these drug eluting stents are given but you are careful to not give the equivalent list prices of the bare metal stents. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 75 | 4 | The methodology used by the Assessment group and the committee is deeply flawed. Data from a local audit is systematically biased. The value used for the absolute risk of repeat revascularisation is illogical and appears to be a compromise number. The value of 7.43% initially used by Liverpool was raised to 11%. Thi must mean they agreed the data was not robust. The literature suggests the rate should be 12-13%. The costs of DES are 2 years out of date and rediculous. At our institution a TAXUS stent is 540 and a Cypher 600. Given a BMS of 278 then the price premium is much more like 300.The 55% ""effect"" of a DES is also a random number which has no logic behind it. The | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, |

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| | | literature clearly indicates the ""effect"" is around 65%. The Liverpool risk factors for repeat revascularisation are also nonsense and are not repeated in the world literature. The fact the committee realised that they should not distinguish between elective and non-elective cases once more demonstrates that they did not belive the data was robust from Liverpool. Therefore using the Liverpool data to define the repeat revascularisation rates in the high risk groups is illogical. | 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 75 | 5 | Implementation of this guidance by the NHS would be a disaster and would reverse all of the gains UK cardiology has acheived in the field of revascularisation over the last 10 years. If this in some way an attempt by the committee, Department of Health or government to drive down the price od DES, then the methodology used will put the whole of the NICE process into disrepute. The cost of DES within the NHS has halved over the last 5 years and is the lowest in Europe. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 75 | 6 | All of the above are already ongoing. | Comment noted. |
| NHS Professional 75 | 7 | The interventional community believe that this guidance remains correct, other than the need to add diabetes as an independent risk factor | With regard to diabetes as a risk factor see FAD section 4.1.23, 4.1.24 and 4.3.4. |
| NHS Professional 75 | 8 | This field is moving so quickly that a review in 4 years would be a mistake. Whether the draft guidance is changed or not, it should be reviewed in 2 years. | The review date has been changed accordingly. |
| NHS Professional 76 | 1 | The preliminary guidance by NICE that Drug-eluting stents (DES) should not be used in the treatment of coronary artery disease is unbelievably poor and should be embarrassing to those who are responsible for the conclusions. The advice is at odds with established clinical practice around the world and with international guidelines, and moreover ignores the randomised controlled trials with DES carried out and published over the last few years. The committees | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and |

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| | | reasoning appears to be based on a profoundly flawed audit of data collected from the Cardiothoracic Centre in Liverpool which was surprisingly published in Heart in 2006. The real data in this paper is very sparse and much of what appears is artificial and based on numerous guestimates, assumptions and dubious extrapolations that make the paper meaningless. Sadly, many such cost-utility studies are similarly useless for the same reasons. My own data from the Cardiothoracic Centre on 407 patients, aged 34-86 years, with 805 DES inserted between Jan 2003 and Dec 2006 have shown that reintervention for in-stent restenosis was required in 18 patients (4.4%) (2.2% of drug-eluting stents), and 3 patients (0.7%) presented with sudden late stent thrombosis. This is in a cohort of patients undergoing stenting for a variety of reasons including multivessel disease, multilesion disease, left main stenosis, chronic total occlusion, bifurcation disease, saphenous vein grafts, small vessels, long lesions, diabetes, in-stent restenosis within bare metal stents and in patients with acute coronary syndromes a mixture of complex cases and off-label indications. Analysis of the data shows the remarkable results that can be achieved with this technology. Most patients have avoided coronary artery bypass graft surgery as well as repeat percutaneous coronary intervention (PCI) for in-stent restenosis which may not only be a difficult procedure but one that is frequently associated with an unsatisfactory outcome. Moreover, the degree of symptomatic improvement with DES in the type of complex cases described above is truly impressive. The problem of late stent thrombosis with DES is an important but uncommon one and will be solved in due course as further drug/stent technology emerges. With regards to the cost effectiveness analysis in the current guidance, several factors have not been considered. These include the fact that the price of DES has fallen significantly, that the revascularization rate | assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |

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| | | is not the only measure of success of PCI and that for many patients, for example, those with small vessels, diffuse disease or distal lesions, those who have undergone previous CABG surgery or who are unsuitable for surgery for other reasons, factors exist that demand the use of a device that is likely to lead to the lowest reintervention rates. Hence, cost-effectiveness can only really be assessed by a randomised controlled clinical trial which includes these complex patient groups and several other end-points. The Bagust study cannot hope to contribute any meaningful conclusions on the issue and should not be used as evidence by a Guideline Development Group. Instead NICE should listen carefully to the evidence and advice provided by experts in the field of interventional cardiology who treat patients using this technology. Little credibility will be given to a committee who chooses to ignore this advice but is seen to make recommendations based on advice from non-interventional cardiologists, statisticians and a broad range of non-cardiac and non-medical personnel that are unfamiliar with the benefits that DES have to offer patients and with the up-to-date literature on the subject. | |
| NHS Professional 77 | 1 | In my opinion this will prove harmful for patients with CHD. According to the literature (and there is a vast amount of data that has been obtained from trials over the past few years) and from my own clinical experience (a high volume operator performing more than 300 PCIs per year)clinical outcomes will be affected adversely. The management of instent restenosis was a major problem for interventional cardiologists until DES were available. In my clinical practice (all of my patients are seen for review on at least one occasion - usually at 3 months) the incidence of clinical restenosis is greatly reduced. In fact I cannot recall the last patient that had to have a repeat intervention for this. This has marked benefits on waiting times and quality of life for patients with CHD. There are also patients | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | with severe disease that are not suitable for bypass grafting surgery that are best served with DES, consider left main stem PCI as an example | |
| NHS Professional 77 | 2 | The clinical demand for revascularisation is huge. I have a busy in-patient practice in a large DGH and the management of patients with acute coronary syndromes has changed considerably in recent years with a more interventional approach being validated. There are also large numbers of patients that require elective PCi and also large numbers of patients returning with symptoms after CABG or PCI (usually a few years afterwards) and often with a different targer in the case of PCI patients. This need will very likely continue and maybe increase as cardiology services continue to grow and patients live longer. The provision of a comprehensive set of treatment options for this very important patient group is very important and, in my opinion, includes DES | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 77 | 3 | The technologies avaialable in interventional cardiology chnage quickly and it is very likely that developments will continue apace. As you state, these are list prices and the actual price paid is considerably lower (I have just completed the tender process for the Essex CTC and we had most DES offered at approx 600-700 pounds per stent). It is inappropriate to use these amounts in any healthcare model | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 77 | 4 | As an interventional cardiologist I would argue that the data speak for themselves. The difference in repeat revascularisation rates in my clinical practice pre and post DES are considerable and this has a major impact on quality of life for my patients. The price of DES will continue to fall. Therefore the health economics issues will become increasingly in favour of DES in comparison to BMS. In certain patient groups one could argue that is verging on unethical to use BMS rather | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | than DES. To deny patients a technology with proven better outcomes is clearly at odds with best medical practice | |
| NHS Professional 77 | 5 | I would suspect that there will be an outcry and we will reach the situation when DES firts became available with patients asking to have DES (which for some lesions will be necessary) and then questioning why they cannot have a DES when they are available in (as far as I am aware) evrty other developed healthcare system in the world. Previously this led to a 2 tier system with private patients having DES and NHS not. I would not wish to see this happening again. The 3 month implementation period will prove fraught as patients jockey for position hoping to avoid the cutoff date when DES are no longer available on the NHS. I suspect that the Secretary of State would find this very difficult politically | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 77 | 6 | There is an enormous body of evidence and this will continue to grow. One thing that seems certain is that the amount of data will increase to help answer thes every important clinical questions about the disease that kills more than any other in the UK | Comment noted. |
| NHS Professional 77 | 8 | From above I would argue that 4 years is too long for review either way in such a fast moving field | The review date has been changed. |
| NHS Professional 78 | 1 | This recommendation is derived from a flawed data collection and analysis (see below) | Comment noted. |
| NHS Professional 78 | 3 | The list prices far exceed the true cost of the products to the NHS. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 78 | 4 | The cost-effectivieness analysis is flawed by the data the assessment group have chosen to use to derive their estimates. In particular, over reliance on Cardiothoracic Centre, Liverpool, audit data to establish baseline risk for repeat revascularisation is entirely inappropriate. The accuracy and robustness of this single-site database are untested and | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections |

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| | | should not be employed as the basis for decided national policy. This should be decided on the basis of pooled results from properly conducted randmomised, controlled trials and other publised registries. Important sourses of data are missing form the analysis. Similarly, over emphasis on Liverpool data to derive the absolute relative excess risk for "high-risk" groups is unacceptable. Finally, the price premium of 600 far exceeds that incured in day-to-day clinical practice. Although this obviously varies from institution to institution, a figure of ~300 is much more realsitic. Using more appropriate estimates of baseline risk, risk-reduction and price premium, the model is likely to show that DES are cost-effective for long lesion, small vessels and diabetes. | 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14.<br><br>The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 79 | 1 | This is an over-simplification, which will lead to loss of the benefit of DES to very high-risk patients. The guidance should focus on methods to identify patients/lesions at very high risk of restenosis, and specify the price differential (300) below which DES would be cost-effective. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 79 | 3 | The prices quoted make no allowance for the discounts negotiated by NHS purchasers. for example, Scottish hospitals pay around 700 per DES. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 79 | 4 | Since there is no dispute that DES reduce the risk of revascularisation, or increase the risk of death/MI compared with BMS, the isuue is entirely one of cost and cost-effectiveness. I am not convinced that the draft guidance has explored scoring systems to identify patients/lesions with sufficently high restenosis risk to make DES cost-effective. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 79 | 6 | Supported. There is clearly a need for further long-term RCT data. | Comment noted. |
| NHS Professional | 8 | The date for review is too distant, bearing in mind the rate of | The review date has been |

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| 79 | | development of new stents, and the rate of publication of new evidence. Furthemore, the price premium for existing DES vs BMS may well fall rapidly. | changed. |
| NHS Professional 80 | 1 | I strongly disagree with a blanket recommendation against the use of drug eluting stents in percutaneous coronary intervention. I agree taht they should not be used in all cases but use of particular stents should be on an individual patient basis. Informed guidence as to type of stents more likly to be beneficial in particular patient groups would be helpful. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 80 | 2 | The risk of stent thrombosis with DES is real but small. However there is an increase risk, and cost, associated with an excess of restenosis with routine use of bare metal stents. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 80 | 3 | The descriptions of the stents are not contentious. However it is misleading in calculating NHS costs to base them on list prices. These are very rarely the ones paid. I uderstand that BSIS is conducting a survey to provide this data - some may also be available thorgh NHS channels. It is important that actual prices are used in making this important assessment. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 80 | 4 | The price differntial between DES and BMS is currently much lower tahn in 2005. As indicated previously uptodata data is required. As with much technology it gets cheaper with time. Similar arguments were originally advanced when the initial very expensive BMS were introduced. Also the whole report seems to weigh heavily on the results from a single centre - Liverpool. A much wider sample of practice should be used. In part this is why we have BCIS. Also assumption of a month of clopidogril after BMS is incorrect in many cases. PCI is now often undertaken after an acute coronary syndrome when clopidogrel is routinely used for one year independant of type of | The Institute has received data from PASA for 2007/08 see FAD section 3.6. The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, |

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| | | stent used. | 4.3.13 and 4.3.14.<br>With regard to clopidogrel see FAD section 4.3.10. |
| NHS Professional 80 | 5 | In the list of Committee members there appears to be a lack of Interventional cardiologists. This seems to be strange ommision even though a small number of experts were invited to attend they seem not to have played a part in the actual production of these guidelines. | The Appraisal Committee does not consist of topic experts, but professionals from a range health-related backgrounds (see section 4.5 of the Guide to the technology appraisals process for details on the Appraisal Committee). Topic experts are invited to the respective Appraisal Committee meetings in order to inform the Committee discussions. |
| NHS Professional 80 | 6 | Overall I feel we should have clearer guidelines on the use of appropriate stents DES or BMS in particular patient groups or clinical situations. There should be continuing audit of national stent usage and outcomes. | Comments noted. |
| NHS Professional 81 | 1 | I have long held reservations on the use of drug-eluting stents. I have always said (like John Cleland) that there"s not a shred of evidence that they have ever saved one life, and more recently (since September 2006) there"s been a suggestion that they may have killed one or two people. I think they were over-enthusiastically embraced by the (interventional) cardiological community & I think they have been over-used. I can understand why, in a cash-strapped system, NICE | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | might not want to endorse them, but, a blanket-ban simply is not credible. It flies in the face of world-wide practice, NICE"s previous recommendations & the considered opinion of the vast majority of UK cardiologists. It totally undermines the credibility of NICE & threatens to make the UK even more of a ""basket case"" than it is already. The economic analysis which underpins this recommendation looks partial, subjective and already out-of-date. It certainly is not robust enough to justify such a dramatic volte-face. I would happily embrace a guideline which restricted the use of drug-eluting stents (even, possibly, quite severely) but I cannot endorse one which bans them outright. | |
| NHS Professional 82 | 3 | These costs do not reflect many of the current prices paid by trusts and will critically increase the QALY costs. This should be re-analysed with more realistc DES premiums. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 82 | 4 | I find the whole setion regarding the assessment group model deeply worrying. The group seems to have discounted a huge body of RCT data and grossly inflated the relative importance of a single audit study from one centre. My understanding of amalgamting several studies ie a meta-analysis is that each study carries a certain weight and this wieght crucially relates its effect to the overall mean data. How therefore does the Liverpool data seem to make the assessment groups figures change so radically. There is no statistical sense at all and in any case the figures at then end seem plucked from thinn air. This is a totally riduculous series of conclusions. Based on this, the QALYs achieved are meaningless. | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 83 | 1 | This is a staggering shift in recommendation from the guidance issued in 2003 and flies in the face of both published evidence and real world efficacy of DES (both economic and clinical)in challenging coronary anatomy. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional | 2 | 2.12 In our local PCI experience, approximately 70% or patients are | Se FAD section 4.3.10. |

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| 83 | | treated as emergencies (ie with Acute Coronary Syndromes). This means that they would be taking clopidogrel for a year after the index presentation anyway, regardless of subsequent PCI with or without DES. | |
| NHS Professional 83 | 3 | All the prices quoted bear little resemblance to those paid by end users, usually on the basis of locally negotiated agreements related to volume and/or use as consignment stock. In my unit we do not and have not, paid over 1000 GBP for a DES. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 83 | 4 | 4.125 The Assessment Group"s meta analysis of RCTs has not been published and exposed to conventional informed peer review. Why is this? Notwithstanding, the conclusion regarding reduction in TVR/TLR and reduced revascularisation in DES vs BMS is clearly inportant at the clinical level in reducing morbidity. Absence of effect on death or MI (even if the analysis is correct) does not, in itself, negate the utility or economic effectiveness of a therapy. The publication by Bagust et al in Heart 2006 using the Liverpool CTC audit data for a cost effectiveness analysis of DES is deeply flawed, being based on single centre data without adequate details of lesion morphology, proper follow up or addressing many other studies reaching different conclusions eg Shrive et al 2005 and van Hout et al 2005. 4.25 and 4.3.12 The price premium adjustment by the Assessment group does not reflect real world DES prices. | The Appraisal Committee was aware of the views expressed by consultees and commentators about the CTC database. Therefore it did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 84 | 1 | To suggest that DES should not be used in interventional cardiology in the UK is absolutely absurd and flies in the face of all evidence we have to date. It this ridiculous move is brought in then it will set back | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | UK interventional cardiology many years and the cost of repeat procedures / unnecessary CABG will be truly enormous. Seems bonkers to me - please explain I look forward to your response. | |
| NHS Professional 85 | 1 | Your recommendations ignore the results of huge multinational randomised trials showing the clinical effectivness of these stents in preventing re-intervention. This is a retrograde step that will disadvantage many patients, including those who are t high risk of restenosis. For those sho are not suitable for bypass surgery, nad who have a good chance of good revascularisation with DES, NICE blunt refusla to recommend them is slamming the door in their face for any sort of intervention | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 85 | 2 | One of the reasons that the DES usage has increased is the change in dempgraphics in patients presenting to Interventional Cardiologists. People are living longer, and the extent of disease is becoming more complex. CABG has a major role, but often the co-morbidity in these patients eg cerebrovascular disease, renal or chest problems, makes surgery a risky option. Some of these patients have had their lives transformed by DES, enabling them to live pain free lives ans stay out of hospital. Thsi would be hightly improbable with BMS, as the TLR rates would be too high. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 85 | 3 | Your prices are way way off what the NHS pays for these stents. The companies all participate in the tendering process so the NHS Trusts get the best deal for quality products with a stong evidence base for their use. Here at Barts and the London we pay hugely less for Cypher and taxus than the figures you quote. If these figures are the basis of your cost effectiveness analysis you are horribly inaccurate. Get your figures right!! BCIS will tell you the average price paid for DES in cardiac centres. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional | 4 | It is unbvelievable that you have spent so much time on data from | DESs are recommended in |

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| 85 | | Liverpool, one centre in this country, and used this over and above the data from RCT"s. You have as stated above, overestimated the premium for DES over BMS and as you know the tender process which is now underway is more global than in the past. You make patient welfare irrelelvant in your calculation, and tar all the DES with the same brush. The facts of life are that not all patients need DES, and most of us are fiscally responsible enough not to use them indiscriminately. But in patients with small vessels, long lesions, Asians and asian diabetics particularly, DES are clinically effective and TLR and TVR rates are reduced as per your calculations by anyhting between 55% and 70%. (we hae a huge asian population in east london). What about patients who are too risky for CABG? You condemn them to no treatment at all. Shame on you | circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |
| NHS Professional 85 | 5 | You need to heed the information submitted to you in response to this document. Patients will not accept 2nd rate treatement and nor should they. Every clinician has a duty to provide their patients with the best, not second best, treatment. Expect a large backlash, particularly as your financial calculations are wrong | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 85 | 6 | There are plenty of randomised trial which you seem to have ignored in favour of data from Liverpool!! You are right that stnets such as yukon, costar, janus do not have the data to support their use, but data on taxus, Cypher and Endeavour is plentiful. You have also overlooked the fact that Endeavour may not need the full 12 months of clopidogrel | Comments noted. Regarding clopidogrel use see FAD section 4.1.22 and 4.3.10. |
| NHS Professional 86 | 1 | I am very surprised and disappointed with proposed guideline of zero DES usage by NICE. We at Manchester Royal Infirmary have been one of the first units in Europe that started using DES and now have >5 years experience with over 15,000 DES implanted. Using DES has had a great impact on our practice with drastic reduction in our in-stent | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Institute has received |

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| | | restenosis rate. It has also meant that we could treat many more patients that would have otherwise been referred for CABG. Two points I will like to make: First of all the original recomendation from NICE recommending DES for small arteries & Long lesions was based on initial randomised studies that were available at the time. Since this original recommendation there has been a plethora of randomised studies with overwholming majority supporting the orginal NICE recommendation so I do not understand how it is that even with now much more randomised studies favouring this approach NICE wants to reverse its decision. My second point is regarding pricing for DES. I believe this is grossly overexagarated like many other high volume units we have been negoatiating pricing which is much lower than the quoted street price for DES. Currently, the price range for DES in our instituatiuon is between 500-670 and is constantly falling. We believe in subset of patients with high risk of restenosis (long lesions, small vessels and diabetics)this represents good value for money. All my interventional colleagues here in Manchester believe that NICE revised guideline for DES is wrong and will have adverse effect on patient care. We believe in reaching their decision NICE has given unporportionately too much weight to small non-randomised studies particularly the one from Liverpool whilst ignoring or giving little weight to the overwhelming evidence from randomised studies. | data from PASA for 2007/08 see FAD section 3.6.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 87 | 4 | I disagree wwith the many of the methods and assumptions used by the assesment group. Using a single centres data to base many assumptions upon is frought with error. 1)The first issue is that there is no guarantee that patients treated with BMS and experiencing restenosis would neccesarily represent to the same hospital. this is partciulary the case with newer PCI centres opening. 2) The cost of instent resetnosis must be calculated to include the cost of readmission to hospital - many pts with instent restenosis present with | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |

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| | | ACS to district hospitals and have to wait for transfer. This process also has a tremendous psychological cost and cost with regard to lost work. 3) Pricings of DES are wholly inaccurate. We have a price premium of 300 in oxford - 280 for a driver BMS and 570 for a taxus DES based on 2007-8 tender. 4) Interventional practice has moved on considerably with DES. The actual rates of symptommatic restenosis if practice were to persist without refusing to do complex cases (ie surgical turn downs) would approach 30%. The cost to the health economy of this would be profound. | The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14.<br><br>The Institute has received data from PASA for 2007/08 see FAD section 3.6.<br><br>DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 87 | 5 | For the assumptions of the Liverpool group to be based on science they would have to perform PCI on a contemporary population and see what the restenosis rate is. Those pts having DES in the latest sample will inevitably have the highest restenosis rate and therefore not represent with symptoms. For a cross section of UK practice NICE should look at the CCAD data collected nationally and recalculate their assesment. | DESs are recommended in circumstances outlined in FAD section 1.1.<br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 88 | 3 | These are not the current prices paid for these devices. Most DES have bee availble for between 600 and 650 for many months. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 88 | 4 | am very concerned by the use of an unpublished local audit to inform key aspects of a very unstable model. For example using the audit to | The Appraisal Committee did not accept all the |

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| | | find real world revascularisation rates for PCI using BMS. Why are the rates from peer reviewed randomised trials not used instead. This local "audit" is not available for peer review, and so certain very important questions regarding methodology need to be raised. In this particular example the revascularisation rate for the population would be greatly modified if patients were on a waiting list for cath ? PCI, but had not yet had it performed because of a local waiting list problem (which we know WAS the case at the time of this "audit"). How many patients were in this position, and how many eventually ended up having revascularisation for restenosis, but were "missed" by the audit? There should not be this admixture of peer reviewed respected literature with low quality, inaccessible, local audit. It de-bases the conclusions, and one has to ask why such a parochial "local audit" was used in an otherwise extremely carefully performed piece of work. | parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 89 | 1 | I am flabbergasted that NICE have should even entertain this recommendation. I am further amazed when it is discovered that the basis of this recommendation is local data from the LIG rather than peer reviewed, internationally published, recognised randomised controlled trials. There are potentially difficulties with drug eluting stents which are the subject of extensive on-going research, but a blanket ban on their use in the UK is no way to resolve these issues. Patients will be highly disadvantaged, more will return for second procedures, more will have clinically significant restenosis, more will require highly invasive bypass surgery rather than angioplasty. Furthermore, the cost-effectiveness data provided by LIG seems to be entirely incorrect. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 89 | 4 | This is the nub of the difficulty. I entirely endorse the issues raised in the response document by BCIS. I will not restate the points they have eloquently made, but to summarise, the LIG estimate of BMS risk | The Appraisal Committee did not accept all the parameters and |

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| | | being based on local Liverpool data is unacceptable, many patients will take clopidogrel for 12 months irrespective of which stent is used, and the price premium for DES is too high in the current market conditions. The cost effectiveness data looks very different when these points are incorporated and a threshold premium of 491 for small vessels would fall within what Trusts currently pay for DES, and clinical usage of DES. | assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14.<br><br>The Institute received 2007/08 data from PASA see FAD section 3.6. |
| NHS Professional 89 | 6 | I whole-heartedly endorse these recommendations. More research is needed at all levels. | Comments noted. |
| NHS Professional 90 | 1 | This recommendation would put the UK alone among ""first world"" countries in denying patients the benefits of drug-eluting stents. The NICE analysis strongly confirms the clinical superiority of DES treatment. It seems to me the right way forward is to utilise the massive purchasing power of the NHS as a whole to negotiate optimal pricing from the DES manufacturers, not to deny patients an effective treatment. If implemented, this recommendation will do a serious disservice to patients, and negate much of the progress made in the treatment of coronary heart disease in the UK in recent years. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 90 | 2 | No issues | Comment noted. |
| NHS Professional | 3 | No issues | Comment noted. |

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| NHS Professional 90 | 4 | The care with which the published data has been quantitatively reviewed contrasts markedly with the reliance the group has seen fit to put on unpublished audit data from one centre (Liverpool). I have major concerns about this. For example, the generally accepted restenosis risk factors lesion length and presence of diabetes were non-significant in the Liverpool audit data and the effect of small vessel size appeared relatively weak, although significant at p=0.02. I would view the absence of these effects in the data as a ""red flag"" indicating the data are not sufficiently robust to formulate national policy. The absolute risks of restenosis and relative risk reduction with DES submitted by BCS/BCIS do differ importantly from the Liverpool data. I note in the case of long lesions the reintervention rate selected in the final analysis was 11%, much closer to the Liverpool figure of 10% than the BCIS figure of 18%, and diabetes was not considered as a separate risk factor. Also, the relative risk reductions entered in the final model were substantially below those suggested by the BCIS data. These decisions seem somewhat arbitrary. | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 90 | 5 | No issues | Comment noted. |
| NHS Professional 90 | 6 | I entirely agree with the call for more randomised trials in the areas suggested. But, what the trials have clearly shown is clinical benefit. Although current NICE guidelines regarding DES usage could probably be tightened up to reflect the advances in BMS technology, removing DES from the NHS altogether largely on the evidence of non-randomised, single-centre audit data is unsound. | Comments noted. DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 90 | 7 | No issues | Comment noted. |
| NHS Professional | 8 | This field is moving so quickly that NICE might want to consider an | The review date has been |

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| 90 | | earlier review date than January 2011 | changed. |
| NHS Professional 91 | 3 | At our institution (The Heart Hospital) we are paying 480. 00 for a drug eluting stent, and 180 for a bare metal stent. A price premium of just 300.00 half | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 91 | 4 | Obtaining a price premium of 300 which is what we pay at the Heart Hospital depends on local management negotiating skills and volumes purchased. National bulk purchase by PASA could probably undercut this figure still further. Using the limited database of the Liverpool implementation group is not an appropriate data-base when there are much larger and more robust data available from randomised controlled trials published in the literature. The combination of an exagerated price premium, and a limited database will result in flawed advice. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 91 | 5 | Implementation of this current advice will mean that an increasing number of patients with restenosis from a bare-metal stent with have to face CABG, an operation which could have been avoided if an appropriate drug eluting stent was used initially. There is very little other management option for instent restenosis - a condition we see rarely at present. Patients may be advised to seek their initial PCI in a centre elsewhere in Europe | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 92 | 1 | This is an extreme reaction to a technology that is widely used and evaluated in peer reviewed studies. This is especially the case as the data used for producing the recommendations is not complete or accurate. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 92 | 3 | The prices quoted in this review are completely unrealistic and must represent a notional "book price". The vast majority of centres using these devices negotiate a much lower price, often on the basis of a tendering exercise. This is a crucial inaccuracy as the NICE recommendation appears to be primarily based on (inaccurate) costs. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |

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| NHS Professional 93 | 1 | If this gets approved it will probably be the end for NICE. They are refusing a proven technology purely on minimal economic grounds. Quite unbelievable! | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 93 | 2 | None | Comment noted. |
| NHS Professional 93 | 3 | None | Comment noted. |
| NHS Professional 93 | 4 | DES reduce the need for further intervention. Where does the impact on the patient come into this? | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 93 | 5 | None | Comment noted. |
| NHS Professional 93 | 6 | None | Comment noted. |
| NHS Professional 93 | 7 | None | Comment noted. |
| NHS Professional 93 | 8 | None | Comment noted. |
| NHS Professional 94 | 1 | This recommendation goes against good evidence of improved long term outcome with DES in selected patient cohorts. It would also increase referral rates for bypass surgery. DES have proven to be very efficient in reducing the need for repeat intervention, which benefits patients and the health system. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 94 | 3 | These prices are not relevant to our current practice. The price of drug eluting stents is considerably less now. Does the result of the economic analysis change when relevant prices are entered ? | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional | 4 | Why is such an important analysis based on a single centre audit, | The Appraisal Committee |

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| 94 | | rather than proper multicentre randomised trial data ? | did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 95 | 2 | DES have allowed us to treat previously non treatable patients with prohibitive restenosis rates if bare metal used. These include surgical turndown patients (much more common than the cardiac surgeons admit and indeed much more common since scrutiny and publication of cardiac surgical results in the press). Even if we examine cases who could receive CABG or DES multivessel stenting then if cardiolgy pass all these on to the surgeons (the ones the surgeons accept that is), cardiac surgeons could not possible cope with the demand. We would return to waits of more than a year for CABG with waiting list deaths and attrition. The surgeons cannot cope with the volume of work now and woul buckle under the increase case load. Removal of DES from the shelves would thus leave many patients untreated or treated with BMS with high restenosis rates and thus cardiac events. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 95 | 3 | List prices are only for the companies. The mainly used stents - Cypher and Tauxus are now available for sub 600 | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |

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| NHS Professional 95 | 4 | Interpretation of cost effectiveness based an unvalidated single centre data. Full better data will be reaching you from BCS/BCIS | Comment noted. |
| Healthcare other 2 | 1 | Implementation of this guidance would be a serious mistake and greatly to patients" detriment. Many patients benefit from this technology. Additionally some patients/lesions are at very high risk of restenosis, such that CABG would be a better alternative than bare metal stenting. DES must remain available for some patient groups. Detailed evidence to support this has been presented by BCIS/BCS. Opinion in the interventional cardiology community is strongly, and I think, unanimously, opposed to this proposed guidance. | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 96 | 3 | These prices are totally unrepresentative of the current pricing - I assume that you already know this. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 96 | 4 | In the light of all of the above, surely a more rational recommendation would be that DES could be recommended if the price premium were less than 300 | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 97 | 1 | This blanket restriction is extreme and not evidenced based. There are patients who clearly benefit where risk of restenosis is higher.Committing these patients to bypass surgery is higher risk and more expensive. Many of the calculations are based on old pricings and skewed single-centre data and are threrfore unreliable. There is room to restrict DES use to benefit the highest restenosis risk patients without harming their safety by denying them this option eg limit DES to 3.0 mm diameter or below. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 98 | 1 | Dear Sir/Madam As a practising consultant interventional cardiologist at Guy"s and St Thomas" Hospital (London) I feel I need to express my concern at these recommendations. I have read through this submission and a large amount of information provided by our | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | representative groups (BCIS and BCS) and feel that there are a number of issues that need to addressed. Although a large amount has been submitted about the relative merits of different percentage cut offs of re-intervention and benefit of drug eluting stents over bare metal stents I do not feel this is the main thrust of the problems with this assessment. NICE, as I understand it, was set up to provide a unification of cost effective best practice across the country. As a consequence cost effectiveness is of your primary concerns and I need to express my reservations about the assumptions made regarding the relative difference in the price of the two products. The failure to find them cost effective depends on a grossly exaggerated cost difference of 600. In our institution (one of the largest volume) I understand the true cost difference to be 450 and if the LPP (continued in next box tender is successful I have been informed that this will drop to less than 300. As it is agreed that, in certain groups, drug eluting stents are clinically beneficial and the only ""difficulty"" lies in their costing the calculations must therefore be performed on realistic figures. If as a health service we do not carry out these processes robustly we will move away from our position as a well respected and effective provider of care to the overall UK population. This would be a very sad day for the NHS as whole and the practice of cardiology in the UK in particular. I would appreciate the panel"s comments on these issues. | |
| NHS Professional 99 | 1 | Withdrawl / reduction of DES would represent a significant degredation of the PCI service in the UK and would be at odds with international practice. In addition the Liverpool audit data on which this is based is largely isolated flawed and contradicts substantial RCT data. Furthermore cost implications are being overestimated when market place costs are considered. Finally in-stent restenosis, the down - side to BMS is not a benign process as often suggested. | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| NHS Professional 99 | 2 | Broadly agree | Comment noted. |
| NHS Professional 99 | 3 | List prices may be correct but I would suggest that all UK hospitals pay only approx. 50% of this. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 99 | 4 | Prices of drug eluting stents as with all new technology continue to fall and create a problem when trying to apply rapidly obsolesced economical modelling to a dynamic situation. Withdrawl of DES will shift the threshold for PCI toward CABG with all it"s attendent problems | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 99 | 6 | Agree | Comment noted. |
| NHS Professional 99 | 7 | No comment | Comment noted. |
| NHS Professional 99 | 8 | Date depends on outcome. Reasonable if NICE continue to reccommend DES but much to distant if DES withdrawn. Much will change in 4 years. Worth noting that interventional cardiologists are continually evaluating their practice and where in the majority performing excellent quality care before during and despite NICE. | DESs are recommended in circumstances outlined in FAD section 1.1.<br>The review date has been changed. |
| NHS Professional 100 | 1 | This a seriously flawed and peverse statement, WHICH IS NOT SUPPORTED BY THE WEALTH OF STENT TRIaL DATA | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 100 | 2 | This section does not address the issue of revascularisation in patients presenting with acute coronary syndromes(ACS) and discusses only stable coronary artery disease. In the ACS group we know from randomised data that these patients are less likely to have MACE if treated with PCI or CABG as compared to medical therapy, | See FAD section 4.3.10. |
| NHS Professional | 3 | The quoted costs are way off what we actually pay for DES. For | The Institute has received |

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| 100 | | example in my hospital we pay 575 pounds for Xience, 600 pounds for Cypher, 660 pounds for Endeavor. Therefore if these innaccurate costs are used for DES any cost analysis is bound to be useless. | data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 100 | 4 | The cost analysis is flawed beacuse of the costs used for DES. Any cost analysis from the Liverpool group in my opinion is seriously flawed and therefore unbelievable. This whole thing justs smacks of cost-cutting and nothing to do with wah tis in the best interest of the patients that we treat every day. | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 100 | 6 | Clearly from what has been presented it doesn"t what future data will show. This is a cost question. The data already exists to show the superiority of DES over BMS but at what cost? Therefore why bother with collecting further data that will take years to colect when what is wanted is cheaper DES? | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 101 | 1 | Strongly disagree with statement as inability to use DES would preclude a significant proportion of patients with CAD (patients with diabetes mellitus, long lesions, small vessel diameter, CTO, bifurcation lesion, multi vessel disease, instent restenosis) to undergo PCI because of the decreased long-term success rate. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 101 | 3 | prices for DES are greatly exaggerated, prices paid in real world are less then 50% of the prices quoted above | The Institute has received data from PASA for 2007/08 |

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| | | | see FAD section 3.6. |
| NHS Professional 101 | 4 | real world prices are more likely in the order of those mentioned in paragraph 4.3.13 | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 101 | 5 | Implementation of non funding of DES would force a significant proportion of patients to undergo inferior treatment for revascularisation with higher risk of requiring further revascularisation in the future increasing the overall risk of cardiovascular complications further as result of denying generally accepted treatment throughout the Europe and the United States of America. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 102 | 1 | This conclusion is based on an inadequate understanding of the current use of DES and a flawed analysis of the available information. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 102 | 2 | DES, as well as reducing the risk of restenosis, are the also best available treatment for restenosis. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 102 | 3 | We never pay list price. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 102 | 4 | The conclusion appears to be heavily influenced by the Liverpool CTC audit. The publication in Heart from the same group gives some detail of the background - however there is no evidence of completeness of patient follow up. If follow-up is incomplete then this is a major weakness which must invalidate it as a tool for an economic analysis. Patients developing angina after a PCI at CTC who have angiography outside Liverpool and further intervention elsewhere (e.g. Manchester) will be assessed as not having any need for recurrent intervention in | The Appraisal Committee was aware of the views expressed by consultees and commentators about the CTC database. Therefore it did not accept all the parameters and assumptions in LRiGs |

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| | | this audit. The burden of recurrent symptoms is not quantified. The burden of recurrent need for medication, investigation, follow-up, time off work etc is not quantified. These are major omissions. | model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 102 | 5 | If the preliminary conclusions are not changed then the NHS will be forced to address the issue of "top-up fees". Those patients with high risk of restenosis will need to consider closing the "affordability gap" by buying a DES for their procedure. (see article Clinical Ethics 2006). The political costs of developing a two tier PCI service in England could be considerable. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 102 | 6 | More reseacrh is always needed - for DES this is nearly always funded by the manufacturers so it is perverse to paint the results of such studies as somehow tainted. | Comments noted. |
| NHS Professional 102 | 7 | A complete U-turn will be difficult to explain to patients. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 102 | 8 | Reviews should be triggered by significant new bodies of evidence. This is what drives clinical practice. The NHS decision making mechanisms are too slow and inflexible. The review of new technologies should always include practitioners fully conversant with the clinical use of the devices in question. Review committees without any "clinical experts" who use the technology can fail to grasp the | The review date has been changed. |

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| | | real-world clinical utility of new devices and underestimate the impact on patients of failure to use devices of proven efficacy | |
| NHS Professional 103 | 1 | The choice of stent for any patient must be based on clinical evidence.The outcome of PCI is multifactorial.Careful patient selection,those at particular risk of repeat procedures,good angioplasty technique and follow up. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 103 | 2 | Restenosis rates in bare metal stents are in the order of 13-15%.This places the patient at risk of a 2nd procedure.Correct patient selection and the use of DES reduces this risk.The use of IVU"s to assess lesions (when available)together with post dilation using a non compliant balloon further reduce the risk of restenosis.Patient education on the adherence to the dual antiplatelet regime is critical. | Comments noted.<br><br>DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 103 | 3 | These prices bear no resemblance to the real world! The average price paid by hospital trusts throughout the country is in the order of 550-650 for DES and 200-300 for bare metal.These grossly inflated prices therefore undermine the true cost effectiveness of DES. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 103 | 4 | To ignore the Internationally recognised published randomised trials in favour of an audit from a single UK centre is, to my mind negligent. Then to use this flawed data as the basis of National guidelines is crimimal! Why should a patient in the UK receive any less treatment than any where else in the world! Numerous clinical studies and reviews have established that DES significantly reduce restenosis and therefore the need for revascularisation procedures compared with bare metal stents.Why ignore this data. | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, |

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| | | | 4.3.13 and 4.3.14. |
| NHS Professional 103 | 6 | As technology moves forward there should always be randomised controlled trials and follow up.Our current practices are based on such data.The long term risk/benefit profile of stents should be closely monitored and the results of this data published throughout the world. | Comments noted. |
| NHS Professional 104 | 1 | This is an absurd statement about a fanatstic treatment strategy thet has aided millions of people | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 104 | 2 | There is no sufficiently powered RCT to date examining the difference in stent thrombosis rates between DES and BMS - most of the registry and audit data have serious methodological flaws. | Comment noted. |
| NHS Professional 104 | 3 | Your quoted stent prices are 2-3 TIMES the price our department pays for them - and the cost of BMS is fundamentally linked to the DES type and numbers we use, ie if we were to stop using DES the BMS costs would go up significantly and even further negate the cost comparisons. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 104 | 4 | As the evidence you are using to do these calculations is fundamentally flawed as I have pointed in previous comments, these calculations are fundamentally flawed. | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD |

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| | | | sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 105 | 1 | I am very confused by the change from your previous recommendation when this technology was suitable for patients with coronary disease that had high risk characteristics for restenosis. This has lead to a sensible (mostly) use of tbis technology to patients who had the most to lose. You had a perfect opportunity to refine this advice further with respect to patients with diabetes, and high risk cases turned down for CABG with last remaining artery, left main disease etc What you are concluding is so extreme that it will lead to an alienation of the UK from the interventional community with respect to research, and clinical benefit to patients, and a potential embarassment to the credence of your organisation (patients will have to go abroad or go private). The conclusions are mainly drawn from the cost effectiveness analysis based on overpriced DES (which in my region are around 600 and falling). Presumably, with reanalysis at today"s prices your committee will see that your previous stent appraisal (71) conclusion was the correct one, and that the benefit this technology offers patients has been one of the most important advances in recent years to the management of angina | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 105 | 3 | These prices do not reflect the current market by a long chalk | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 105 | 4 | I am bemused by your interpretation - there is no doubt the DES reduces the need for further revascularisation, and as such is a significant clinical advance for the management of patients with angina. Your conclusions state that this is at an unacceptable price for the NHS, but it is at a time with tumbling prices, and is at odds with your previous recommendation, when the prices were astronomical. | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | You do need to add a degree of clinical common sense - DES technology is not for every patient, but it is a technology that should be available for NHS patients. Please rethink your conclusions and recommendations, with the patients in mind - as it stands, it will serve patients with ischaemic heart disease very poorly, and lead to a reversal of the marked clinical progress made in cardiovascular medicine in the UK over ecent years. | |
| NHS Professional 105 | 6 | I wonder whether the funding for these trials that are needed will come from NHS resources....? Based on past performance. I don"t think so. | Comment noted. |
| NHS Professional 105 | 7 | Excellent sensible guidelines which appear to have been thrown to the lions... | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 106 | 1 | This is a potentially disastrous decision for UK cardiology. We will be denying our patients a treatment which has been shown to be efficacious in reducing disabling chest pain symptoms. Many more patients will have to be referred for coronary bypass surgery, which is higher risk and associated with much greater recovery times and procedure related morbidity. It would be a huge retrograde step in current practice. Any credibility that NICE currently holds for fairly assessing treament options will be irretreivably lost. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 106 | 2 | Not only have DES useage rates increased, but the lower restenosis rates have allowed patients previously only treateble by CABG to have a PCI option. There are many cases who would not be offered PCI if DES was not available. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 106 | 3 | These list prices bear no resemblance to actual purchase prices across most PCI units. Actual purchase costs should have been ascertained and used in the analysis. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional | 4 | That the economic moddeling is based firmly on an unvalidated single | The Appraisal Committee |

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| 106 | | centre experience over published and peer- reviewed data is incomprehensible. How have the costs for re-investigating patients with recurrent symptoms been made? There is not just the cost of further revascularisation procedures to be considered but the clinic time, stress testing and repeat angiography to be considered. Once the vessel has restenosed, the only option will be CABG as the other tretment option (DES within BMS) will have been discounted by this edict of nil DES usage. Has the cost of the CABGs been taken into consideration in the analysis? | did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 106 | 6 | These comments are self evident and facile. We cannot wait for another five years to compare new DES with new BMS. As technology changes, up to date trials are always need but this will not obviate the need to continue to use the best evidence available at the time. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 106 | 7 | This is a complete reversal of previuos guidance and has very different implications from not approving a new technology. This is an established treatment option for very many people across the UK with CVS disease - not a low volume niche product for an uncommon medical condition. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 107 | 1 | I understand that the appraisal committee is devoid of expertise in the treatment of coronary disease with no interventional cardiologists represented. This statement represents in an inexpert evaluation of the vast dataset supporting the use of DES. Much of the arguement that has been made against the data supporting the use of DES is based on one UK hospital"s audit data. I am astounded that so little weight has been given by the committee to the large numbers of | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | patients represented in the RCTs vs the small numbers in the Liverpool data. This statement if it comes to be ""standard"" will condemn UK patients to substandard therapies, leading to a greater cost in repeat intervention, and the mortality and morbidity this entails. This statement will not only damage patients and their future care but will damage the reputation of NICE and the NHS in the eyes of patients, doctors, and the media. NICE should be utilising expert opinion and looking to evaluate therapies using the data available. This statement is shameful. | |
| NHS Professional 108 | 1 | I feel that the NICE recommendation is a retrograde and unsupportable step. I have seen the Liverpool data, and seen the BCS/BCIS rebuttal and agree entirely with the latter. I cannot believe an organisation like NICE is going to ignore major international randomised controlled trials in favour of a single centre, uncontrolled audit. I also cannot believe that it will base its recommendations on such erroneous cost models. We pay ~ 100 per BMS and 550 per DES in Stoke, and with our current tender the DES price may well drop below 450. This is so far away from your cost benefit model as to ridiculous. The advice is so far away from the expected outcome that one can only fear that this represent central government interference, as a way to limit access to PCI for UK residents. The previous guidance of 15mm and <3mm represented a pragmatic management of an evolving technology and was comfortably accepted by interventional cardiologists. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 108 | 3 | Your prices are way off what is commercially available now. How old are your models? | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 109 | 2 | I agree with this FAD sections- it is all fact | Comment noted. |

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| NHS Professional 109 | 3 | The list price of BMS should be stated if DES are stated. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 109 | 4 | 1 The committee accepts that Restenosis occurs and is reduced by DES, but have not put a paragraph about this. 2. protocol driven TVR should have occurred in the same pattern in DES and BMS arms in all trials. Asymptomatic ischaemia carries a hazard (from ACAS and other studies). Historical trials of BMS vs POBA suggested 10-25% restenosis rates in the stent arms. In DES trials this is lower as a number of trials have low risk short lesions. Does the BCIS rate of revascularisation and the scottish data reflect the whole spectrum of restenosis (50% of restenosis is asymptomatic) or only 50% of it- the other 50% being undetected as we don"t routinely do ischaemia testing unlkess there are repeat symptoms? 3. use of DES in restenosis should have been modelled separately- this is a high risk category with 50% restensois is POBA or BMS is done. This would surely be cost-effective? 4. the base model should use national UK data- BCIS- and not a single centre data- liverpool to base rates of repeat procedures in BMS, DM, long lesions, small vessels and restenotic lesiosn. In addition small vessels <2 mm cannot take a stent of any type. Small should be <3mm. | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 109 | 5 | withdrawal of funding for DES would be unlikely to save money in the overall economy- how about piloting such an unpopular move in one region 1st to see the real effect- I suspect it would be to move more people to the private sector, and to start a market in patients ""buying the DES for personal use"". | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 109 | 8 | the review date is too far away. I suggest review in 2 years. (2009) | The review date has been changed. |

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| NHS Professional 110 | 1 | I am a senior SpR training in cardiac intervention. I feel that this conclusion will be a major set back to cardiology in the UK. My own assessment of the cost effectiveness of DES does not agree with the reports findings, and the clinical evidence from RCT and the clear and dramatic improvement of outcomes in "real" clinical practce with DES makes it clear that they are an invaluable resource. Patients with small arteries/ diabetes and Asians will suffer most if the recomendations are accepted | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 110 | 3 | The prices listed above are not the prices negotiated with local tendere are significantly higher. Our institution pays approx 800 pounds per DES. Thereofre using this figures for cost effectivenes analysis are certain to provide wrong conclusions. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 111 | 1 | This guidance is at variance from the first world communities views and the FDA"s statement which is quoted disagrees with the provisional giudance. In January 2007 the Circulatory System Devices Advisory Panel made recommendations to the FDA. The Panel stated, When the DES, which are indicated for use in the USA (SES [Cypher]) and (PES [Taxus]), are used in accordance with their approved indications both are associated with a small increase in stent thrombosis compared with BMS at 1 year after stent implantation; the increased risk of stent thrombosis was not associated with an increased risk of death or MI compared with BMS; and the concerns about thrombosis do not outweigh the benefits of DES compared with BMS when DES are implanted within the limits of their approved indications for use. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 111 | 2 | I agree with all of the above | Comment noted. |
| NHS Professional 111 | 3 | My unit is part of a purchasing consortium The stent costs to me are roughly half that quoted in 3.3 | The Institute has received data from PASA for 2007/08 |

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| | | | see FAD section 3.6. |
| NHS Professional 111 | 4 | THe assessment committee should not have used the Liverpool data set. THe BCIS/CCAD/MINAP data sets currently have a larger data set from the pilot sites. The cost analyses require an accurate actual cost of DES. | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 111 | 6 | At the recent EURO PCR meeting this was discussed and the large audience considered that large registry data was the most appropriate to further study DES from roughly the same options above. | Comments noted. |
| NHS Professional 112 | 1 | NICE should be ashamed of itself. This misguided appraisal of the current evidence in Cardiology is an embarrassment and discredits the NICE process. The opportunity to refine the (more sensible) previous advice on DES has been squandered. How would NICE like us to treat patients with, for example, instent restenosis? Coronary artery bypass grafting for all? | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 112 | 3 | The list prices are not what we pay, as you know. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 113 | 1 | Dear members, I can fully support your position that drug-eluting stents should only be used under tight indication, such as restenosis | DESs are recommended in circumstances outlined in |

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| | | after bare metal stent implantation or long and small lesions. However, drug-eluting stents are expensive, need dual antiplatelet treatment for at least 12 months or maybe life-long and are associated with an often deadly complication of very late stent thrombosis due to the lack of endothelialisation. Thus, mortality tends to be higher for drug-eluting than bare metal stents, although revascularization rate is higher in bare-metal stents. It can be concluded that drug-eluting stents have only a limited indication and should not be used wide spread for treatment of patients with coronary artery disease. | FAD section 1.1. |
| NHS Professional 114 | 1 | I am a Consultant Cardiologist at The London Chest Hospital. The withdrawal of (funding for) drug eluting stents from the NHS would be a mistake. Before finalising this NICE technology appraisal, it is vital that the opinions of clinicians who have to treat patients with coronary artery disease are heard. Irrespective of the cost-effectiveness data for patients as a whole, drug eluting stents are required for the optimal care of particular patient subgroups. These subgroups often have coronary artery disease that is difficult to manage whether by stenting or coronary artery bypass surgery. This includes patients with so-called "surgical disease" who do not wish to undergo coronary artery bypass surgery, patients who are turned down for bypass surgery, patients with instent restenosis (surely you would not advocate returning to brachytherapy to prevent recurrent instent restenosis), patients with very long lesions or very small vessels. I would accept that the appropriate selection of patients for drug eluting stent use is important but feel strongly that the withdrawal of this technology (or withdrawal of its funding) from use in NHS patients would compromise patient care. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 115 | 4 | Mighty complex - unfortunately no references for studies used and no numbers or patient details of the observational Liverpool audit. The | The Appraisal Committee did not accept all the |

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| | | conclusions made appear flawed: the rate of TVR is far higher with BMS than the figures used for cost effectiveness. Far too much emphasis has been placed on I assume small audits performed in one centre - very bad science. It must alsombe realised long lesions in a small vessel are commonly treated and that long lesions in diabetics with small vessels are also frequently treated - they lesion length, size and whether the patient is diabetic is not mutually exclusive. The predicted TVR rates for these with BMS is in the high 20 - 30%. I agree it is not cost effective to use a 4mm x 15mm DES, but this does not hold true for a 2.5mm x 33mm DES. Real world stent pricing should be used and would take a day to collect. | parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14.<br><br>The Institute has received 2007/08 data from PASA see FAD section 3.6. |
| NHS Professional 115 | 8 | I hope this will not be the case as a blanket ban (ie U turn) is inappropiate. I learnt early in my medical career one should never say never - and it appears that NICE is doing this. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 116 | 1 | The data used in the conclusion of this appraisal is flawed and does not consider the huge international literature and evidence in favor of DES, which has transformed patient care. The advice is not in the best interests of the patients and does not represent Clinical Excellence, which the institute claims to represent! The appraisal should not be upheld. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 116 | 1 | This recommendation is extraordinary and totally against both the current evidence base and recommendations of both the ESC and the ACC/AHA for important sub-groups of the population. This will lead to | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | a dramatic increase in repeat PCI procedures for patients who develop clinical restenosis, particularly in patients requiring long stents or stents in narrow calibre vessels, as well as the increasing diabetic population. | |
| NHS Professional 116 | 2 | The description of the use of stents as an ""adjunct technique"" given that they are used in excess of 94% of PCI procedures is slightly ridiculous in 2007. | Comment noted. FAD section 2.5 has been changed. |
| NHS Professional 116 | 3 | The DES CoStar has been withdrawn from the world market and therefore should not be included in guidelines issued after that withdrawal. What were these costs sourced? | Comments noted. FAD section 3.4 has been amended.<br>The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 116 | 4 | There seems to have been an unprecedented amount of weight and consideration given to a single-centre non-validated audit from the CTC, Liverpool. Are these proposed guidelines for Liverpool, or are they supposed to be national guidelines? It seems astonishing that so little weight has been given to the recommendations of our national elected professional bodies - BCS and BCIS | The Appraisal Committee was aware of the views expressed by consultees and commentators about the CTC database. Therefore it did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD |

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| | | | sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 116 | 8 | Hopefully this guidance will not be published in its current format. If by some extraordinary aberration it is, with the progress of UK cardiology driven back by 10years, then a much sooner review of this guidance will be mandatory. | DESs are recommended in circumstances outlined in FAD section 1.1.<br>The review date has been changed. |
| NHS Professional 117 | 1 | This guidance, if endorsed, will be a major retrograde step for the practice of cardiology in the UK. Interventional practice in this country is highly esteemed worldwide and BCIS is in the vanguard of interventional development. The withdrawal of DES will be completely out of step with practice elsewhere in Europe and in the USA. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 117 | 2 | The availability of DES has widened the scope of percutaneous revascularisation resulting in a huge reduction in waiting times for treatment and a move away from the major insult of coronary artery bypass grafting (CABG). At the same time, cardiac surgeons are increasingly reticent to operate on high risk patients, including the elderly. The withdrawal of DES will have a massive impact on CABG waiting lists, an outcome which the NHS and government can ill afford. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 117 | 3 | The provided prices are not applicable in the real world where bulk buying and tender agreements enable competitive pricing. Thus the highlighted cost premiums for DES are incorrect. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 117 | 4 | The late stent thrombosis risks of DES have been overstated and the majority of problems relate to inappropriate withdrawal of anti-platelet therapy. The assumptions inherent within the evidence provided by the Liverpool group are flawed as highlighted by Dr Gershlick and others. | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, |

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| | | | 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 117 | 5 | No specific comments | Comment noted. |
| NHS Professional 117 | 6 | No specific comments | Comment noted. |
| NHS Professional 117 | 7 | The evidence presented to the 2003 NICE guidance panel remains robust - the decision to revoke this previous guidance is perverse, illogical and flawed. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 117 | 8 | No specific comments | Comment noted. |
| Carer 1 | 4 | 1. Repeat PCI will frequently not occur in a person with restenosis in a stent because the results are worse compared to stenting in native vessels. A clinician will thus decide to manage angina medically. If DES are unavailable this effect will be magnified as restenosis is best treated by DES (the incidence of a second restenosis with BMS is over 50% compared with less than 20%. 2. I would be very unhappy to use audit data from one centre as a way of banning the use of DES. My knowledge of audit suggests it is nearly always incomplete. Please stick to the use of properly controlled randomized trials. 3. Please state at what cost differential you consider DES cost effective. This will make the DES suppliers drop the prices. 4. An angioplasty is a | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, |

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| | | frightening. A second procedure should be avoided whenever possible. Your costings do not account for time lost in work by the patient or stress of second procedure and outpatient costs. Does it take into account the need for a third procedure? Occassionally very high risk angioplasty takes place and it is particularly dangerous to do a second procedure for restenosis. DES should always be allowed for these patients | 4.3.13 and 4.3.14.<br><br>The Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 118 | 1 | The decision of NICE beggars belief and is the result of a fundamental misunderstanding of the data. This proposal flies in the face of global interentional practice and will set back pateint care more than a decade. This propoasl comes at a time when NICE recently supported both the use of homeopathy and recognising ME as a major clincail condions- both in the absence of any true data! | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 118 | 2 | Current data suggest that the small increase in late thrombosis in DES (if any) is outweighed bythe redution of restenosis and the morbidity associated with it | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 118 | 3 | THis price list is a nonsense. At UCLH we pay less than 550 for all DES If these data were used for cost analysis or to asssess QALYs then they are wildly innacurate | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 118 | 4 | again as the prices are wromg for DES then so are these cost analyses | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 119 | 1 | This proposal could not be sustained if all of the relevant evidence were considered. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 119 | 2 | Revascularisation will benefit more than 1500 per million population. PCI rates alone exceed this in some UK centres. | Comment noted. |

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| NHS Professional 119 | 3 | List prices are greatly in excess of ""market prices"". This should be explicitly acknowledged here. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 119 | 4 | This is the most contentious part of the review. NICE propose to remove access to an effective technology for NHS patients on grounds of cost effectiveness. The assessment panel have not had the benefit of a model that includes all of the available data, BCIS have not had satisfactory answers to the inclusion criteria, and why some of the largest studies have beenexcluded. More data is published regularly. For example, a large US centre with excellent database facilities reported a study in this month"s ""Catheterization and Cardiovascular Interventions"" 70:175-183 (2007). In this study, looking at repeat admissions before and after the abrupt change from bare metal to drug eluting stents, they showed a reduction of 81% in TLR. This was clinically driven data with no concerns regarding angiographic follow up and angiographically driven TLR. If NICE expect clinicians to justify to patients use of an inferior technology, they must produce analyses based on the totality of the data. The principles of cost effectiveness are perfectly acceptable, but implimentation on flawed analysis is not. | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 120 | 1 | Thousands of patients in the UK have been offered PCI in the era of DES who would not previously have been offered PCI because of the high restenosis rates with certain lesion subtypes. These include patients with diabetes, renal impairment, disease of small vessels, chronic occlusions, ostial disease, bifurcation disease, calcific disease and others. Statistics show the divergence of PCI and CABG as revascularisation techniques through recent years, reflecting massive | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | expansion in PCI provision and no expansion in CABG provision. It is simplistic to think that these patients will be treated with BMS or CABG if DES are not funded. The resistance of cardiac surgeons to treating higher risk patients has become a worldwide phenomenon - unfortunately patients turned down for cardiac surgery never get into outcome studies and they form a growing proportion of the work of interventional cardiologists. | |
| NHS Professional 120 | 4 | When BMS were first introduced they were expensive but their cost fell rapidly once sufficient competitiveness developed in the market. Now they are very cheap. Already trends are the same for DES. The option for patients who are denied DES may well be medical therapy alone as many will not be offered CABG or PCI with BMS. | DESs are recommended in circumstances outlined in FAD section 1.1.<br>The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 121 | 1 | This is an unacceptable position. I agree that drug eluting coronary stents are currently overused in the UK, largely driven by by the previous NICE quidelines. A reduction in usage to cover patients that benefit most would be appropriate. I currently use drug eluting stents in situations where I think the benefit is minimal purely in order to comply with previous NICE quidelines, as NICE guideline compliance is audited within our department. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 121 | 3 | These list prices do not reflect real world prices and therefore invalidate any cost-effectiveness analysis. Our up to date prices for Xience, Cypher and Endeavour range from 595 - 660 plus VAT, compared to your list prices of 1340 - 1500. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 121 | 4 | The cost effectiveness model is invalid and needs to be adjusted for real world process. I understand that BCIS will be submitting data on pricing. | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs |

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| | | | model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 122 | 1 | This is too sweeping a conclusion and somewhat reactionary. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 122 | 2 | DES are very useful tools in many clinical situations and should not be withdrawn. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 122 | 3 | Are these costs truely accurate in todays market? | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 122 | 4 | The relative benefit of DES over BMS is too low when taken from the Liverpool group report (35%). | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14. |

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| | | | The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 122 | 6 | Further research is welcomed but DES should not be withdrawn until these results are known. | Comment noted. DESs are recommended in circumstances outlined in FAD sections 1.1. |
| NHS Professional 122 | 8 | If these recommendations are published then an immediate review would be necessary. | DESs are recommended in circumstances outlined in FAD section 1.1.<br>The review date ahs changed. |
| NHS Professional 123 | 1 | While it is correct to consider the pros and cons of drug eluting stents, to conclude that none should be used is without any doubt the wrong conclusion. I will not regurgitate the BCIS/BCS systematic criticism of the data but do suggest that NICE acknowledge the validity of the concerns raised. A detailed response to the profession"s concerns is needed and the recommendations should be reconsidered. If NICE"s recommendations were submitted for publication, peer review would prevent them being aired in public. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 124 | 1 | There is no mention of instent restenosis. By preventing the use of drug-eluting stents all patients with in-stent restenosis requiring revascularisation are forced to have CABG - often inappropriate, especially for single vessel disease. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional | 2 | Rates of DES use at our institution, which were at around 60%, have | Comments noted. |

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| 124 | | now dropped significantly following the recent concern about the risk of very late stent thrombosis. Our DES rate is now 30-40%, and DES are reserved only for small or very long lesions or instent restenosis. | |
| NHS Professional 124 | 3 | These prices are grossly overinflated compared with what NHS hospitals actually pay. Our bare metal stents cost 200-260 and our DES cost 650, making the premium 400-450 (cypher and taxus) | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 124 | 8 | Given the rate of development of new stents, and the rapidity with which prices are reducing, I feel that waiting for a further 3.5 years before reviewing this field will render NICE guidance out of date and discredited long before it"s proposed review date. | The review date has changed. |
| NHS Professional 125 | 1 | This seriously restricts the choice for those patients with special needs such as diabetes and goes against the body of literature | DESs are recommended in circumstances outlined in FAD section 1.1.<br>With regard to diabetes as a risk factor see FAD sections 4.1.23, 4.1.25, 4.3.4. |
| NHS Professional 125 | 4 | Further efforts are urgently needed to obtain tighter pricing to allow this advancing technology to be used for UK patients | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 126 | 1 | I have written several articles critical that the use of stents in patients with multivessel coronary artery disease is not evidence based and is not cost effective and yet has been used to deny patients access to the Please see my earlier comments. DES may be justifiable in some forrms of single vessel disease but not in multivessel disease, left main disease or diabetes where surgery is much more clinically and economically cost effective and where patients should at least be offered the option of CABG. | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| NHS Professional 126 | 2 | see 2.10. NSF objectives of around 750 CABG per million were "ignored" in favour of a massive increase in the use of stents by interventional cardiology. This was not supported by best evidence of what was the more effective treatment but rather that the interventional cardiologist acted as the sole "gatekeeper" of the patient rather than the decide treatment options as part of a multidisciplinary team. This has in effect resulted in many patients being denied access to surgery despite its survival benefit, improved quality of life and superior cost-effectiveness over the longer term. | Comments noted. CABG was not appraised in this review. |
| NHS Professional 126 | 7 | NICE should recommend that any patient requiring intervention for coronary artery disease should have treatment options recommended by a multidisciplinary team including a surgeon to ensure real patient choice and informed consent. | The remit of this (part) review of technology appraisal 71 was to provide recommendations on the use of DES only. More specific advice on patient management are usually given in clinical guidelines. Although individual choice is important for the NHS and its users, they should not have the consequence of promoting the use of interventions that are not clinically and/or cost effective" (Social Value Judgements - Principles for the development of NICE guidance; principle 5) |
| NHS Professional | 1 | No close observer of the field of interventional cardiology, no | DESs are recommended in |

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| 127 | | interventional cardiologist, no medical statistician with a comprehensive understanding of the literature and no patient who has successfully undergone percutaneous coronary intervention with implantation of a drug eluting stent, will be able to understand how the Appraisal Committee has reached such a disatrously erroneous conclusion. To do so is to clearly demonstrate a fundamental lack of knowledge of the literature, a lack of understanding of multi-centre randomised controlled trials versus single centre ""experience"" and a determination to ignore advice from acknowledged experts in the field during a consultation period. This preliminary recommendation will call into question the credibility of NICE itself for ever. | circumstances outlined in FAD section 1.1. |
| NHS Professional 127 | 2 | BCIS is the British Cardiovascular Intervention Society. NICE has previously supported the use of DES, although again ignored previous expert advice on the full range of lesion and patient characteristics that should qualify for DES. It''s previous assessment (based on lesion length <15mm and vessel size <3mm) that approximately 30% of patients would qualify for DES has proven to be woefully inaccurate - out by a factor of 2. At a point when DES useage is at a level consistent with previous recommendations, the Institute is now recommending an about turn and an instantaneous reduction in use to 0%. This is a bizarre conclusion and must surely be unique given the lack of scientific explanation for such a U-turn. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 127 | 3 | It is exceptionally unlikely that the list price is relevant to the majority of cardiovascular institutions undertaking percutaneous coronary intervention with DES. It is almost certainly the case that NICE was advised of this fact by BCIS, but has chosen to ignore it rather than making the effort to determine the price on the ground for this technology. | The Institute has received data from PASA for 2007/08 see FAD sections 3.6. |
| NHS Professional | 4 | The Assessment Group''s analysis is heavily weighted by the audit | The Appraisal Committee |

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| 127 | | data from Liverpool CTC (Heart 2005). For this single centre experience to carry more weight than the results of multicentre, double-blind, randomised controlled trials is extraordinary. Patients in Liverpool were not systematically followed up by the cardiothoracic centre; data on recurrent angina and repeat angiography are incomplete; repeat revascularisation was limited to patients undergoing this in Liverpool. The only logical conclusion is that the Assessment Group has either not read the Liverpool paper properly, or has misunderstood the process of follow up for patients undergoing PCI in a regional centre. To make a bald statement on lack of cost-effectiveness misses the point that patients with angina requiring revascularisation, who are denied DES, are unlikely to accept medical treatment if this technology cannot be offered. If this NICE recommendation is carried, the number of patients requiring CABG will go up exponentially, as will waiting lists and targets will be threatened. Cath labs will threaten Trusts with financial extinction, as best medical practice will dictate the continued use of DES. | was aware of the views expressed by consultees and commentators about the CTC database. Therefore it did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 127 | 5 | The Secretary of State should conclude that the current recommendation will bring the National Institute of Clinical Excellence into a state of international disrepute and will set back UK cardiology by 10 years or more. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 127 | 6 | New studies should not be undertaken to try to fit a flawed conclusion. | Comment noted. DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 127 | 7 | There is lack of clarity on the difference in methodologies used in the previous review and the current recommendation. Whereas the intial process was robust, the current recommendation appears to be based | Comment noted. DESs are recommended in circumstances outlined in |

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| | | almost entirely on a flawed paper, which itself appears to have been further misunderstood by the Assessment Group. At the very least, the Assessment Group has failed to identify some serious methodological flaws in this paper, and their consequences. The Committee in turn has produced an extraordinary conclusion and complete U-turn. | FAD section 1.1. |
| NHS Professional 128 | 1 | Though, in per centage terms, DES use is currently too high in the UK it would be wrong for NICE to state that DES has absolutely no role in treating patients with coronary artery disease. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 129 | 1 | This is the equivalent of trying to get the genie back in the bottle. Theses stents have revolutionised our ability to offer patients a safer and more effective revacularisation than CABG withou the risk of stroke or myocardial infarction during the procedure. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 129 | 2 | 2.7 Acute recoil is the normal response of the vessel to dilatation. What you are trying to describe is acute occlusive dissection which can occure in less than 5% of interventions within 24 hours. 2.10 The NSF was completely arbitrary and based on data from the 1990s - the split of 750/million for each revascularisation came about because it created an equal split and was thus seen to be fair. It was never based on evidence. | Comments noted.<br><br>FAD section 2.7 has been changed. |
| NHS Professional 129 | 3 | What is the point of quoting list prices? No-one in the UK pays anything near these prices. The average DES price is 585. You could have discovered this information from a basket of centres and created an average. As a consequence, the economic assessment is fatally flawed and worthless. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 129 | 4 | Far too much weight has been given to the CTC audit data in Liverpool as a bench-mark of practice. | The Appraisal Committee was aware of the views expressed by consultees and commentators about |

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| | | | the CTC database. Therefore it did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 129 | 5 | Thus, you and we are hostages to fortune, with disproportionate weight given to the Assessment Group recommnendations. | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional | 6 | More trials are not needed for an objective assessment to occur. If we | DESs are recommended in |

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| 129 | | all wait long enough for long-term trials, we may not need to use stent technology is the message here. It completely ignores the benefir avilable now to patients. We know the subgroups who benefit. | circumstances outlined in FAD section 1.1. |
| NHS Professional 129 | 8 | Too far away - the field is moving too fast for NICE | The review date has been changed. |
| NHS Professional 130 | 1 | Disbelief. These stents revolutionised our ability to treat long small calibre lesions. Many patients do not have anatomy to allow CABG and in many cases have significant comorbidities making open heart surgery high risk. The inability to stent coronary arteries with DES stents commits many patients to an existence with severe angina on medical therapy. With the explosion of obesity and poor nutrition diabetes is increasing. Repeated studies show how this group fair well with DES and poorly with BMS. In stent restenosis is not a benign condition. Patients may present with unstable angina, infarction and sudden death. The cost of treatment with hospital admissions, repeat procedures and CABG is substantial. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 130 | 1 | I have read the proposed NICE guidelines on on the proposed use (or non-use) of Drug Eluting Stents, and would ask you to reconsider this. I would propose using DES for long diffue disease, small vessels <2.5mm,diabetics and chronic total occlusions. I feel that NICE has chosen to ignore a lot of published scientific data on DES and relied heavily on the audit data from the Liverpool group which was originally performed as an in-house audit, and is incomplete and not scientifically robust in contrast to randomised controlled trials. The cost differential between BMS and DES has shrunk considerably compared to 2-3 years ago. To prevent the use of DES would in my view be a very negative and backward step,and would make us the laughing stock of our European and American colleagues, and I would strongly urge NICE to reconsider their advice. | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| NHS Professional 131 | 1 | This recommendation effectively reverses a previous NICE recommendation and removes from use a treatment which has been widely available since 2003 and which has been used to treat well over 100,000 patients in the UK with coronary heart disease. This is based on a flawed cost-effectiveness analysis and NICE"s adherence to an arbitrary cost-effectiveness threshold. This recommendation should be reviewed again. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 131 | 3 | List prices do not reflect real world prices. Guidance only refers to patients undergoing single vessel PCI. This should be emphasised. 30% of PCI"s in the UK are multi-vessel procedures. The risk of repeat revascularisation with BMS"s in multi-vessel disease is higher and DES may be more cost-effective. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 132 | 1 | I am very surprised and disappointed at this recommendation. I am an interventional cardiologist who has been practising coronary angioplasty (PCI) since 1983. From it"s inception the aim of PCI has been to achieve long lasting arterial remodelling, identified initially as angiographic success and subsequently as clinical efficy. While I acknowledge that the current technology is not perfect it is as close to the above aim as we have ever been. To deny patients the option of drug eluting stents is a serious retrograde step. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 132 | 2 | I agree that subacute stent thrombosis occurs with both types of stent. The recent concern following meta-analysis of BMS versus DES RCT"s is over very late stent thrombosis ie after 12 months post implantation. The data is dubious and highly definition dependent. The AHA and BCIS statements regarding use of Clopidogrel for 12 months after all DES implantion (ie not the period during which the potential problem has been identified) is illogical and has no evidence base. In my view it is not justified. To include it in a cost analysis of DES is misleading and inappropriately tips the balance against the use of the | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | DES and their proven efficacy. | |
| NHS Professional 132 | 3 | The above prices are list prices and are not the prices the NHS pays for the stents. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 132 | 4 | The arguments are long and very complex but certain important aspects must be borne in mind. The QALY has its uses but it is a fundamentally flawed tool. The value of a reduction of recurrence of clinical events is not the same for all paients. Many of the trials have been in elective patients with stable angina. Recurrence in unstable and infarction patients is of greater significance. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 133 | 1 | This recommendation if followed would require a significant U turn in our treatment of coronary artery disease. Currently the PCI/CABG split in Greater Manchester is approx 70%/30%. Of those undergoing PCI at our centre approx 50% have very complex disease currently treated with DES ("off label" use) and could not be treated using bare metal stents due to prohibitive restenosis rates. If DES were not used, these patients would need to be referred for CABG. Our already overstretched CABG services could not cope. The current elective CABG wait is 3 months and the inpatient wait for ACS aptients is 3-4 weeks following referral. Significantly increasing (perhaps doubling) the CABG referral rate would cause chaos. My major concern is therefore patients in whom the choice is not DES vs BMS but in whom the choice is DES or CABG. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 133 | 2 | Point 2.5 More than 50% of our patients are treated as inpatients following admission with an acute coronary syndrome. It has clearly been shown that an invasive strategy in these patients reduces events (ie has a prognostic benefit). This strategy involves proceeding to angiography followed by revascularisation in all patients, and is superior to a conservative strategy that involves angio/revasc only in | Comment noted. |

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| | | patients who have symptoms or a positive ischaemia test. Therefore half of our patients (those with acute coronary syndromes) require angio/revascularisation irrespective of symptoms. | |
| NHS Professional 133 | 3 | The real DES price that we pay is 500-600 and is coming down rapidly. The real BMS price is 170-350. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 133 | 4 | Local price premium DES vs BMS is 300-400. Re. Liverpool data: is this pear reviewed in full ? What patients were included/ excluded ? We need to know the population analysed - many excluded patients may infact have had DES ? Was the data retrospective/prospective? If retrospective it is prone to reporting bias and unlikely to have collected full details on the patients enrolled/ not enrolled. The above analyses compare "on label" use of BMS vs DES. In reality much of our work is "off label". Although not included in RCT, registry data and local experience is supportive for DES use in these patients. The alternative is frequently CABG because BMS restenosis rates would be considered prohibitive. Therefore the relevant comparison is frequently DES vs CABG. CABG has many hidden costs. For ACS patients (50% of our work) angioplasty is performed at the same time as angiography whereas currently an inpatient wait of 3-4 weeks following angiography occurs pre-CABG and an addition 3-4 days recuperation postprocedure. Therefore, the excess cost of CABG vs DES in ACS patients currently includes an addition 25-30 days inhospital stay. A shift to CABG would further increase this wait. | Comments noted.<br><br>The Institute has received data from PASA for 2007/08 see FAD section 3.6.<br><br>DESs are recommended in circumstances outlined in FAD section 1.1. The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |

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| NHS Professional 133 | 6 | Until we know the results of DES vs CABG and the relevant cost effectiveness (SYNTAX, FREEDOM trials and others) I do not see how NICE can comment on "off label" use of DES. At present many of these patients are treated with DES. If all these patients were referred for CABG there would be chaos ! | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 134 | 4 | The committee has fatally misjudged the price premium paid by most NHS Cardiac Institutions for DES over BMS. Most Institutions pay approx 650 for a high quality DES on volume discount, and approx 250 for a high quality BMS. The price premium already paid therefore is already close to that the committee state is likely to be cost effective. The committee"s decision on this guidance is flawed, based on flawed assumptions, and should be reconsidered. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| Other 2 | 4 | We just have submitted an 18 month cost-effectiveness analysis of the BASKET data to Lancet, examining predefined high versus low risk patient groups including comprehensive sensitivity analyses covering all aspects of the cost-effectiveness equation. Results also contain costs per QALY gained. The conclusion is: if used in all patients, DES are not good value for their price, even if prices were substantially reduced. However, in high risk patients DES are cost-effective or even cost-saving. We think that this data might be of relevance to your discussions and if so, we would be willing to provide you this data on a confidential basis if the Editors of Lancet agree. | Comments noted. |
| Other 2 | 6 | We may inform you of the BASKET-PROspective Validation Examination (BASKET-PROVE), a prospective multicenter European trial addressing the vexing problem of stent use in patients in need of large (at least 3.0 mm) native vessel stenting. In a subgroup analysis of BASKET, the 18 month outcome of these patients showed no relevant benefit of DES; in fact, this seemed to be the group of | Comments noted. |

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| | | patients with most harm related to late stent thrombosis (Eur Heart J 2007;28:719). BASKET-PROVE will randomize 2260 such patients to Cypher versus Vision (as in BASKET) versus Xience, a 2nd generation DES based on the Vision stent with a -Limus drug. The 1o end point will be cardiac death/MI after 2 years, with 1 year dual antiplatelet therapy and no protocol-driven angiography. Last week, patient nr. 500 was included; expected end of enrolment: Spring 2008. A design paper will be submitted to the Am Heart J after an Investigator meeting in Vienna coming Saturday (ESC meetings). | |
| Pharmaceutical Industry 1 | 2 | Paragraph 2.12: We support the recommendation of dual antiplatelet therapy with aspirin and clopidogrel for 12 months. However, after the 12 months period continuation with clopidogrel should be reviewed on an individual basis considering the individual risk for further events. | Comment noted. FAD section 2.12 has been changed accordingly. |
| Pharmaceutical Industry 1 | 4 | We note that there appears to be significant and unresolved divergence between manufacturers and TAG views of the clinical and economic value of DES. Paragraph 4.2.13: The use of data from a single centre to perform the cost effectiveness analysis may have some limitations. Being that the Cardiothoracic Centre (CTC) is a tertiary centre this may limit the applicability of the results to the rest of the UK. We also note that there is a heavy weighting given to the data from the Cardiothoracic Centre (CTC) in Liverpool as opposed to the clinical trials. We welcome greater explanation of why the appraisal committee was persuaded that the TAG estimate of cost-effectiveness was more valid. | The Appraisal Committee was aware of the views expressed by consultees and commentators about the CTC database. Therefore it did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD |

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| | | | sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 135 | 1 | In all adequately powered randomised studies, drug-eluting stents have been shown to be superior in reducing restenosis and the need for repeat revascularisation as compared with bare metal stents. In addition, although there have been concerns regarding a lsightly increased rate of late stent thrombosis, there is no difference in death or myocardial infarction events. The efficacy of DES has been demonstrated in all lesion and patients subsets. Indeed, the more complex group of patients appear to be those that derive most benefit. The alternative strategy of coronary bypass graft surgery for patients with angina is associated with considerably more morbidity and when given the choice, patients will frequently chose angioplasty over CABG. Except for those patients with left main stem disease (in who study results are awaited) there is no evidence of superiority of CABG over and above PCI with DES for patients with multivessel disease. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 135 | 3 | Co-Star has been withdrawn at present, and there is very little use of either the Janus stent or Dexamet stent. The prices stated are significantly higher than the price that we pay (almost double), such that any analysis based on cost is completely erroneous. The cost effectiveness analysis of BASKET should have been done at 1 year and results are not clinically justified at only 6 months. | The FAD has been updated accordingly (see FAD section 3.4). The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 135 | 4 | I completely disagree with the statement ""the absolute risk of revascularisation with BMSs for the general population is 11%"" this is completely incorrect both from data prior to the introduction of DES and indeed in real world practice of contemporary PCI. For example, restenosis and repeat revascularisation has been documented in up to 55% patients treated with BMS in bifurcation lesions. In the randomised study of BMS versus Cypher for CTOs, the target lesion | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, |

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| | | revascularisation rate was 19% versus 4%. The figure of 11% based on the Liverpool data is clearly a highly selected group of patients that is not in line with contemporary practice of ""all comers"". In addition, much of the conclusions seem to be based on the results of the Basket trial. This trial has a rather unusual, rather low risk patient population - diabetes<br>was present in only 19% (standard UK practice usually >25%), chronic occlusions in only 3% (standard practice 10%), bifurcations in 5% (standard practice 15%), MI in 21% (have very low rates of TLR irrespective of stent type) etc etc The study was underpowered to detect the significant difference in efficacy in complex patients. | 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 135 | 6 | In contemporary practice, for the treatment of complex patients, it is unethical to carry out research using BMS compared with the proven technology of DES. Therefore future research is now evaluating the relative efficacy of different DES against each other. Statement 6.1 is therefore very much out of date. There is now published data from many registries of contemporary practice (eg Rotterdam, Milan) that demonstrate that the most advantage from DES is incurred from using them in the most complex patient population. | Comments noted. |
| NHS Professional 136 | 4 | The evidence from RCT"s that DES reduce restenosis and re-intervention rates seems overwhelming. The cost-effectiveness analysis seems to be based on non-randomised audit data from a single centre. If this is an acceptable basis on which to radically alter national guidance, the accuracy of the assumptions should at least be reviewed. The bottom line (cost per QALY) will be highly sensitive to the input data used (e.g. base BMS re-intervention rate 7.8%v.12%, excessive DES price premium) and should be re-worked using the full range of possibilities (worst case to best case) before throwing out the baby with the bath-water. | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee |

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| | | | considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 136 | 5 | None | Comment noted. |
| NHS Professional 136 | 6 | We already recognise sub-groups that benefit greatly from DES (viz. long lesions/stented segments, small vessels, diabetics) | Comment noted. |
| NHS Professional 136 | 7 | The 2003 guidance still seems emminently sensible. We took legal advice in 2003 to see if we could phase in DES usage because of concerns over cost but were advised that failure to use DES in the identified high risk groups would be indefensible. Clinical practice has now exceeded the guidance and needs to be controlled, but not, in my view, at the expense of patients for whom DES represent an enormous advance. The committee should not under-estimate the difficulty, expense and considerable patient morbidity associated with attempted treatment of in-stent restenosis from which we have all been blissfully free for the past 3-4 years, nor ignore patients with extensive disease that are unsuitable for CABG surgery. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 136 | 8 | As it currently stands, the guidance should be reviewed immediately. | DESs are recommended in circumstances outlined in FAD section 1.1.<br>The review date has been changed. |
| NHS Professional 137 | 1 | The method used is different from that used by NICE re Primary Prevention for ICD. NICE should state at what price the technology is cost effective and in which patients | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional | 2 | More than 60% of patients who undergo intra-coronary stents have | Comment noted. See FAD |

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| 137 | | had an acute coronary syndrome where the duration of therapy for clopidogrel is 12 months even without a stent (See previous NICE guidance!). It is ilogical to include the cost of clopidogrel as an ADDITIONAL cost in these patients | section 4.3.10. |
| NHS Professional 137 | 3 | These prices are incorrect. IN NHS Lanarkshire a DES stent is <600. NICE ignored the evidence re price given by the expert advisors. NICE need to explain why they performed calculations using prices that they knew were wrong - leading to a wrong conclusion! | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 137 | 4 | NICE need to look at the serious adverse events in patients who undergo treatment for in-stent restenosis. UK registry data have suggested an serious adverse event rate of more than 1 in 50 patients. The consequences of in-stent restenosis in BMS need to be quantified for the economic model. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 138 | 1 | The Appraisal Committee"s preliminary recommendation is inappropriate. The recommendation is based on the Appraisal Committee"s finding that the use of drug-eluting stents is not cost-effective, using a cost difference between DES and BMS of 600. The recommendation should reflect this finding and indicate that DES are efficacious but that the decision not to recommend DES use is based on financial grounds. The preliminary recommendation is based on an economic analysis using audit data from a single United Kingdom cardiothoracic centre. As presented in the Consultation Document this analysis has significant limitations. The number of patients in the audit data is not reported (but is likely to be relatively small) and the quality and completeness of the data is not discussed. Moreover, the estimates of cost-efficacy prepared by the Assessment Group differ substantially from other cost-efficacy data considered by the committee. The reasons for these differences are not explained and the preliminary recommendation does not reflect the uncertainties | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | surrounding the cost-efficacy of DES evident in the Consultation Document. | |
| NHS Professional 138 | 2 | In clinical practice DES use has extended beyond indications defined by RCT evidence (off-label use), but if the preliminary recommendation is implemented commissioners will likely withdraw support for all DES use. This could have a profound effect on interventional cardiology in England and Wales (but not Scotland and NI). Many patients currently treated with DES would no longer be PCI candidates, and these patients might have to be referred for CABG or might not be eligible for any revascularisation procedure. The economic/societal implications of such a change in clinical practice deserve comment. Para 2.9. The rate of PCI procedures in the United Kingdom is lower than in much of Europe and the USA. Implementation of the preliminary recommendation is likely to reduce the number of PCI procedures in England and Wales. Para 2.12 The recommendation for 12 months clopidogrel is controversial and not evidence-based. Do the estimates of cost efficacy include 12 months or shorter durations of clopidogrel? The Appraisal Committee appears to accept FDA (etc) recommendation for 12 months clopidogrel - interestingly FDA also recommend continued use of DES! | DESs are recommended in circumstances outlined in FAD section 1.1.<br><br>Regarding the use of clopidogrel see FAD sections 4.1.22 and 4.3.10. |
| NHS Professional 138 | 3 | Paragraph 3.3 The CoStar and Janus stents are no longer available in the United Kingdom. List prices for DES are not relevant to the NHS. | Comments noted. FAD section 3.4 has been amended accordingly with regard to CoStar. Information suggests that Janus is still available. The Institute has received data from PASA for 2007/08 see FAD section 3.6. |

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| NHS Professional 138 | 4 | 4.1.1 Results of SPIRIT-II comparing Xience V and Taxus stents are available. Trials comparing BMS with CoStar and Janus stents have also reported. 4.1.6 The assumption that all DES are similar except in drug delivered is incorrect. In clinical practice stent choice is influenced by ease of deployment. The efficacy and safety of DES may be influenced by the presence and type of polymer coating. The metallic structure of the stent can also influence restenosis risk (e.g. ISAR STEREO, Circulation 2003;103:2816). 4.2.11 The estimated cost difference between DES and BMS (537 Taxus and 659 Cypher) does not reflect 2007 real-world prices and a difference of 300 may be more realistic. 4.2.14 The revascularisation rate of 7.43% (Liverpool audit data) is low and may underestimate the true revascularisation rate. What was size of the audit cohort? What was duration and completeness of follow-up? Were all revascularisation procedures captured? 4.2.15 The fact that the analysis identified unusual risk factors (for revascularisation?)probably reflects the limited statistical power of the analysis, which may also may also explain wide CIs | Comments noted. For the Appraisal Committee considerations of the comparison of DESs see FAD section 4.3.3<br><br>The Institute has received data from PASA for 2007/08 see FAD section 3.6.<br><br>The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14. |
| NHS Professional 138 | 5 | Implementation will result in significant differences in coronary interventional practice between Scotland, and England and Wales. | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| NHS Professional 138 | 6 | Further health economic research is required to provide more reliable estimates of cost-efficacy and to take into account changing costs of BMS and DES. | Comment noted. |
| NHS Professional 139 | 1 | This is an enormous reversal of current guidance. Large numbers of patients who have been eligible for DES (for a very long time ie 3 or 4 years) will not be eligible overnight! The reason we give for this will have to be clearly spelt out. Even if we understand and accept the basis for them there will need to be provision for the patient to have this explained and this will need to be in the simplest of terms. Will this provision be made available - for instance an easy to follow pamphlet outlining the basis for this decision? We will also suddenly find ourselves once again the laggards of the developing world. And from what I have heard we used to have that reputation in spades. Apparently we had the reputation of being the the most conservative in our medicine at least in cardiology and were known to adopt new technology last (eg advocating bed rest when everyone else was giving thrombolysis, or thrombolysis when others were doing primary PCI). Fortunately we have caught up and now my impression at meetings is that we do seem to have comparable if not superior treatment for our patients with coronary disease compared to most. Let"s not return to the "dark ages" | DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 139 | 2 | PCI is being undertaken in large numbers. It is behoven upon us to perform it as optimally as possible. As stated, the real problem with PCI prior to DES was restenosis. This has been enormously reduced by their introduction which was not recent but in 2002. To take them away after 5 years when, if anything, their performance, efficacy, safety and cost profile have all been better established naturally invites many questions. If this were to happen then it had better | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | happen in a circumstance where the analysis is totally robust and without fault. | |
| NHS Professional 139 | 3 | These prices bear no resemblance to true prices. Last year we had offered to us DES at 570 to 590 by all three major (in the data sense) companies (ie Cordis, Boston and Medtronic). This year just prior to the current tender process, which i am closely involved in, all have substantially moved their prices with one of the big 3 quoting 345 (not confined to us but available to a large chunk of London). However you look at it your list of prices does not reflect the actual cost of drug eluting stents ie the price we buy them at to treat our patients with. | The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional 139 | 4 | The 11% figure for the ischaemia driven rate of revasc following BMS seems at best tenuous and worst erroneous being based on limited data. Little or no attention has been given to data from the pivotal trials which have been dismissed as being flawed because revasc was supposedly driven wholly by angiographic restenosis. So as a supposedly more valid analysis one trial is depended upon more then any other ie the BASKET Trial. No attempt to make up for this has been made by using the vast registries that exist which represent real world data. For true rates of revasc, including multivessel disease, registries are by definition more accurate as RCTs are selective and have lower event rates being used more to prove/disprove hypotheses. The use of Liverpool audit data alone limits the validity of the calculations. A wider net should have been cast.A price premium of 600 is out of date.We(most of London) have been offered 345 for DES from Nov 07 against 150 for BMS.What price next year? How will you allow for a treatment crossing the threshold of cost effectiveness say in Feb 08? Is BMS at 500 in 04 more cost effective than DES at 345 in 07? Depends what you measure it against.. | The Appraisal Committee did not accept all the parameters and assumptions in LRiGs model see FAD sections 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.10, 4.3.11, 4.3.12, 4.3.13 and 4.3.14.<br><br>The Appraisal Committee considered BCIS's assumptions see FAD sections 4.2.23, 4.2.28, 4.3.13 and 4.3.14.<br><br>The Institute has received data from PASA for 2007/08 see FAD section 3.6. |
| NHS Professional | 5 | It will be interesting to see how the implementation of this total | DESs are recommended in |

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| 139 | | reversal of guidance is implemented and how NICE will be able to convince patients who were previously eligible for DES that they are no longer and that this is not a totally cost driven reversal of guidance. After all 3/4 years of guidelines suggested we use DES in certain lesions. Now although there is no doubt that the DES are cheaper than they were and that there is a larger more consistent body of data supporting their use and that the price premium has been hugely eroded this is the time that is being chosen to reverse this guidance. Some patients who would have had PCI may now receive surgery. Is it the intention of NICE not only to dictate the type of technology available for use but also to influence the type of revascularisation the patient receives? Has NICE calculated the additional cost implications of this also? | circumstances outlined in FAD section 1.1. |
| NHS Professional 139 | 6 | As stated large registries are available that have not been used in the analysis - more will become available. Also at least two randomised trials comparing DES with Surgery will report in the next 12 months. This is incredibly important as many patients (in my experience) would rather have procedures that are as minimally invasive as possible. Making DES unavailable could make this less likely. | Comment noted. DESs are recommended in circumstances outlined in FAD section 1.1. |
| NHS Professional 139 | 7 | A review of the whole area should be undertaken together. To make a comparison of BMS versus DES may be deemed artifical. An overview of the whole field may make more sense. The natural progression from plain old ballon angioplasty (POBA) with no adjunctive therapy in the early 90s to DES plus antiplatelet therapy with perhaps concomitant reduction in use of CABG and vastly greater numbers of patients being revascularised generally should be considered in its entirety. How have the advances in PCI impacted on cost in this field as a whole? Will the effective banning of DES halt advances in the treatment of patients with Coronary Disease? Would it slow the | Comment noted. DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | production of eg biodegradable stents or paradoxically discourage any advance in minimally invasive surgery by reducing competition? If big decisions are to be made they should be made with half an eye on the horizon. | |
| NHS Professional 139 | 8 | This field is moving so fast that this date seems too far away. Coronary disease is still as you have pointed out the biggest killer in the UK. An annual review is the very least that is required and even more so if major reversals of previous guidance are being made. This affects too many people and their families for anything less to be acceptable. | The review date has been changed accordingly. |
| Pharmaceutical industry 2 | 1 | I am strongly opposed to this recommendation given the marked reduction in clinical need for repeat revascularisation procedures in patients treated with a drug delivering stent. Repeat procedures lead to increased clinical risk for patients. Appropriate targeting of clinical subsets of patient likely to benefit would seem a better course to follow. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| Pharmaceutical industry 2 | 2 | Studies such as ARTSII confirm the clinical benefit of using drug eluting stent implants over bare metal stents. Like other clinicians I can easily think of anecdotal patients where severe harm resulted from aggressive restenosis in bare metal stented vessels. I find it hard to believe that no cardiologists are present on the appraisal panel. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| Pharmaceutical industry 2 | 3 | The randomised clinical trial base is extensive for Taxus, Cypher, and Endeavour stents. The quality of available data is high and strongly support use of this technology. | Comment noted. |
| Pharmaceutical industry 2 | 4 | Convincing reduction in the need for repeat revascularisation procedures is a very important clinical consideration for patients which should not be discounted. | Comment noted. DESs are recommended in circumstances outlined in FAD section 1.1. |

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| Pharmaceutical industry 2 | 5 | I would have real problems with a recommendation which flies completely in the face of cardiological opinion. | DESs are recommended in circumstances outlined in FAD section 1.1. |
| Pharmaceutical industry 2 | 6 | Seem reasonable. | Comment noted. |
| Private sector representative 1 | 4 | Enthusiastic reports of drug-eluting stents (DES) being cost-effective (CE) compared with bare-metal stents (BMS) are derived primarily from two pivotal clinical trials and based on model assumptions that do not match contemporary practice estimates. The clinical trial data are typically based on <1.5 stents used per case, BMS restenosis (TVR) rate of >12%, and reduction in TVR by DES of >60%. In contrast, the corresponding numbers in the real world practice exemplified by the BASKET trial are nearly 2 stents per case, BMS TVR of <8% and reduction in TVR by DES of about 40%. Cost-effectiveness of DES is directly related to underlying BMS TVR rate & magnitude of TVR reduction & inversely related to stent use. CE of DES in clinical trials is amplified compared to clinical practice due to - Underestimation of stent utilization rates - Overestimation of restenosis rates with BMS (thick-strut stents, protocol angiography) - Overestimation of restenosis benefit with DES - Underestimation of duration of antiplatelet therapy - Underestimation of the consequence of stent thrombosis | Comments noted. |
| Private sector representative 1 | 5 | While we agree with NICEs overall conclusion that a strategy of ""unconditional"" substitution of BMS with DES is not costworthy, NICE should nevertheless encourage their judicious use to optimize benefit-risk-cost profile! Draconian measures such as the one contained in the draft recommendations are inevitably counterproductive and will lead to more heat than light. We hereby | DESs are recommended in circumstances outlined in FAD section 1.1. |

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| | | propose our recommendations for DES use in clinical practice: 1. Selective initial use of DES in patients at high-risk (TVR rates >15%) for restenosis; TVR rates >15% are typically seen in small vessels (< 3 mm) and longer lesions (>15 mm) in nondiabetics and <4.0mm in diabetics. 2. Bail-out"" use in those who present with clinical restenosis following BMS. 3. Strict avoidance in those unable or unlikely to comply with long-term antiplatelet therapy (to avoid potentially life-threatening late stent thrombosis) In our opinion, this restricted strategy is sensible, evidence-based and fiscally responsible! | |
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