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All-Party Parliamentary Group on Vascular Disease

10 September 2013

Attendees:

Neil Carmichael MP, Chair
Jim Shannon MP
Dr Gerry Rayman
Professor Michael Edmonds
Mr Hisham Rashid
Dr Gerard Goh
Martin Fox
John Turner
Stuart Robson
Dr Iain Robertson
Neil Baker
Robin Hewings
Paul Srodon
Dr Nick Chalmers
Said Habib
Dr Jonathan Valabhji
Wayne BartlettSyree
Rachel O'Connor

[*First 15 minutes not recorded; transcribed in summary form*]

Neil Carmichael MP

- Success of previous inquiry – 70% of recommendations taken up by Department of Health;
- Secretary of State attended meeting – he cares about outcomes;
- Issue of variations in amputations;
- Importance of the patient.

Iain Robertson

- There is evidence for the importance of patient pathways and multi-disciplinary teams.
- All important steps in the patient pathway:
    - Interventional radiology – image guided, catheters, balloons, small incision, local anaesthesia;
    - Treatment of Critical Limb Ischemia;
    - Inclusion of interventional radiologists in multidisciplinary teams key.
- No patient should undergo amputation without an interventional radiologist first seeing them.
- Time is key; patients need prompt care.

- There should be regular multi-disciplinary team meetings.
- Improved outcomes have been seen in stroke and arterial aneurysms, but not in severe limb ischemia.
- The BSIR working with the Vascular Society.
- Necessary to make best use of available capacity, but there are concerns over centralisation. It is important to use outside hubs and hubs effectively.
- There is need for ongoing education, with patients not receiving treatment opportunities.
- Centralisation can lead to exceeding capacity in hubs, and so hubs need to work with local hospitals.
- In summary, interventional radiologists should be included in multi-disciplinary teams that should meet regularly.

Stuart Robson

- Had experienced ulcers and severe pain and local hospitals suggested amputation.
- Self-referred and asked GP to refer to King's, where he was treated well due to the nature of the team and the joined-up discussion that took place.

[*A verbatim record follows*]

I was told I should consider amputation, and was referred to Roehampton Hospital with a view to that going ahead. I was in so much pain at that time that if they had said, 'We can do it now' I would probably have said, 'Yes'. Luckily for me, a friend of my wife's saw an article about King's in the paper; I went to my GP, who was happy to refer me to King's. That was nearly four years ago. King's did a skin graft on my shin, vascular bypass on my leg and amputated a toe that was beyond saving. One year after that they then corrected a Charcot ankle. The treatment is ongoing and I am now just waiting to have a skin graft to finish the job. Had it not been for the teamwork and the cohesive nature of the team here as opposed to where I live, where you just got sent off to see different people who seem not to speak to one another, then I would have been on one leg. I needed a team who spoke to each other, met at my bedside and discussed the best outcome. They have achieved that.

Neil Carmichael MP

Thank you very much for telling us that. It is a very powerful story. Just for the record, you have already both been in front of the Secretary of State last time around. Let us now hear from John.

John Turner

Thank you. I am here to say to you that this has been a very special year for me. Number one, I have turned 80. Last year, when I was a young 79 –

Neil Carmichael MP

Hopping about.

John Turner

– hopping about, yes – the problems started. They obviously go back further than that. I only live 35 miles away from King's, but I did not know anything about King's. It seems my local hospital

did not either and nor did my GP. First of all, I went to a private clinic where I frittered away £5,000 because they thought it was a vascular problem rather than arterial. I then went to our local centre of excellence and both the clinic and our local centre of excellence said to me I should consider amputation. When things were getting very painful I then rang up Diabetes UK. They could not help; they did not seem to have any suggestions other than I trailed round the London hospitals.

Fortunately – in a peculiar way because I have a granddaughter with cystic fibrosis and King's had looked after her for years and the treatment has been very good – my wife, who is very good at researching on the internet, came across one of the articles written by Mr Rashid. I asked my GP to refer me there and, thanks to their operation, I still have two legs and 10 toes. My message or my question is: can it be better known that these things exist? I know you have interests in Antarctica; Tunbridge Wells might be as far away as Antarctica as far as this matter is concerned. Thank you.

Neil Carmichael MP

Thank you very much. You both rammed home two central points. One is the importance of teamwork and one is the importance of diagnosis. That has been really well done in this meeting today. I am not planning on taking either of you to Antarctica, although it is a great place to visit. Thank you very much indeed for coming along today.

I am just going to mention the bell. One is going to ring at some point in the next 15 minutes and I am going to leave. That is because I have to go to a division; it is not because we are having a fire.

Gerry Rayman, member of NICE diabetic foot Guideline Development Group – one of the things about the NHS is nearly every title is a long one. Welcome.

Gerry Rayman

I do not actually have a great deal to say because we heard some really passionate speakers already who have actually outlined the case extremely well. I have been involved in the diabetic foot for at least 20 years now and we established a multidisciplinary foot team back in the 1990s, reducing our amputation rates by over 75%. Indeed, we have championed the importance of the multidisciplinary foot team together with others such as Professor Edmonds here. It is only within the last four or five years with the development of a number of pathways – the Putting Feet First pathway, the support of Diabetes UK and the support of NHS Diabetes – that the idea of multidisciplinary foot teams has taken off. We have foot networks set up throughout England, but unfortunately with the demise of NHS Diabetes those foot teams are no longer supported. That is a real tragedy and it is going backwards slightly.

At the beginning you talked about the importance of the patient being central to this. This is absolutely the key of the multidisciplinary foot team: it is built around the patient. It is not built around surgery. This is one of my difficulties with the new development of centralisation of vascular services. That is not to say that it may not be good for aortic aneurysms and carotids, but this is about a different aspect of care. It involves a lot of different individuals and it involves quite complex decision-making. I thought Iain Robertson did a delightfully good introduction to this. Time is absolutely critical here. It is critical that people get together to discuss that patient and not to refer that patient and wait for something to happen. That is what sadly is happening since a number of us have lost our vascular services.

In December we had a meeting of all the network leads and I asked whether they foresaw a problem with the centralisation of vascular services. Over 50% foresaw a problem. I know

anecdotally six highly specialised foot teams that have delivered excellent reductions in amputation rates whose services have now begun to fragment. They are fragmented because they are no longer multidisciplinary foot teams: the surgeons are elsewhere. Not only that; when patients are referred across, the decision-making does not often involve them. Finally, if you centralise all these patients – remember there are 60,000 foot ulcers a year – into 70 centres they are going to be overwhelmed. That is the feedback that I have had: the centres are overwhelmed with patients.

I think we are actually fragmenting the multi-disciplinary team. We are not making the best use of the expertise that is out there. We have talked about capacity for intervention radiology – if it goes all centrally there are going to be waiting lists centrally. I make a plea here for looking at vascular services around the diabetic foot and retaining all the aspects of the multidisciplinary team.

Neil Carmichael MP

Thank you very much. Does anybody have any questions?

Hisham Rashid

I would support Gerry Rayman's deep concern about this centralisation process, with both the overwhelming of the centre and the reduction of staff in the spokes. It is fine for aneurysms, but it is certainly not good for carotids or for peripheral vascular diabetic disease. This should be one important aspect of our inquiry of your Parliamentary Group.

Neil Carmichael MP

Thank you very much. I am sure we have noted that down.

Said Habib

I totally agree about the centralisation and the trouble, but we in Nottingham are starting to see the fruits of centralisation for vascular disease. You have just heard patients in Roehampton were not offered the specialised service of King's. We do multidisciplinary meetings every week where the consultant from Mansfield attends as well; radiologists attend; we all do. Our intervention is mainly skills-related – and not only skills – and the availability of all your devices. Certainly the devices we use in the teaching hospital are not available in the DGH. We all agree with that. We review all the cases from the peripheral hospital in the MDT and we decide which one can be done here or can be carried out in Mansfield. By doing this we reduce the number of patients needing bypasses, amputation and giving them a chance for further intervention if needed, especially they are complex procedures.

Hisham Rashid

That is not quite a blind process of everybody going in to the centre is it? You look at each case on its merits.

Said Habib

We review all of them actually.

Hisham Rashid

Yes, but some are carried out in the DGH.

Said Habib

Yes. If they are simple they are carried out from the DGH but, again, only if there is a vascular surgeon covering, as you have mentioned. That is not always the case.

Neil Carmichael MP

Are there any more for more questions? Can I just welcome a colleague of mine, Jim, from Strangford?

Jim Shannon MP

You were close to it yesterday when we were over in Northern Ireland.

Neil Carmichael MP

Yes, we went to Northern Ireland yesterday. The logistics were quite simple for me, who did it in one day. It was a great thing – absolutely fabulous. We had a House of Commons Grand Committee. We were not talking about vascular disease, but we covered a lot of other subjects.

Thank you very much for your presentation, Gerry. The next person we are going to hear from is Robin Hewings, who is head of policy at Diabetes UK. We have not met before – welcome to this session.

Robin Hewings

What I am just trying to cover in this presentation is a little bit about how we see the evidence base and some of the things we are trying to do to make improvements in this area. In the call for evidence there were a number of statistical things that were being looked for and I have lots of those things for diabetes in patients, audit and that sets things up in terms of what we think should happen next.

We are a large charity that is for people affected by vascular diabetes and we do all kinds of things to make that better. We help people manage their diabetes; we campaign with people with diabetes, and with professionals as well. We also do some pioneering research into all types of diabetes. Reducing amputation is a really important area for us and with our Putting Feet First campaign we are hoping to reduce the rate of amputations by 50% over five years. The things that we feel are really important for that are: people with diabetes becoming more involved in their own care – well-managed diabetes is much less likely to create issues with amputations; to improve commissioning; to deliver the right pathway; and also to raise awareness amongst those at high risk about the options that are open to them.

In terms of what we have done, we have highlighted the issue of diabetic amputations in the media. Jeremy Hunt has also backed the idea that we want to reduce the number of amputations. In terms of what we want to do next, I was quite struck before I arrived here how few people who had diabetes were aware that amputations were something that they were at increased risk of. We will be issuing a red card to people with diabetes so that they know more about what to look out for, where to go if there is problem and the treatment options for them. Something we saw earlier in previous years was the importance of people asking for a second opinion if it has been suggested to them that they should have a major amputation because the options are often much better than presented to people.

Getting on to some of the things in the call for evidence: looking at access to foot care in primary care, there are not overall figures for how many CCGs have established a patient pathway. We are

working with the 50 worst areas and I have had a sense from working with those people that the biggest problem is that the number is going up. It is not at a stage where I can give you a precise figure because we are still in conversations with a lot of people, but my sense is that things are moving in the right direction with that. Most people seem to get the basic foot check. Again there is not really hard data on this, but the issue seems to be the referral on from, 'Someone has a problem with their foot' and then getting the right specialist care. That feels like it is a problem and it is often said to be a problem, but there is not real data and it is not obvious how you would get real data on how much of a problem that is.

In terms of then moving up the pathway onto multidisciplinary teams usually at secondary care, the evidence is that they are one of the most important parts of what can be delivered. They are a commitment by NICE and they help people who are both in hospital and in the community. There is also a recommendation that they should be seen very quickly. We do not have a set view about who should be a member of the team. More important are the skills that the team should have and that people have right access to others, particularly such as yourself, who can move things forward in the right way. In terms of how many hospitals have them, 30% do not – that is nearly 10% better than it was last year, so we have some evidence that things are moving in the right direction. It is one thing for people to have a team; it is another thing for people to actually see the team and there are still far too many people who have diabetes who are not being seen by the team. There are even people with active foot disease who are not seeing teams very quickly at all and that is something which is quite striking and quite shocking to us.

That is all I have to say.

Neil Carmichael MP

Thanks very much indeed, Robin. That is very interesting. You certainly have a nice metaphor in your footpaths and so on, so that is very good. Does anyone have any questions for Robin? We are actually cantering through this faster than I was expecting. You have probably got yourselves a bit too worried about the 'order, order' bit. Are there any questions?

Said Habib

There is something you might wish to add to the charity, and it is actually an idea as well. The majority of patients are not aware that smoking can end up in amputation. I actually heard one suggestion that the cigarette packet should have amputees rather than cancer because you can basically say that everyone is getting cancer – one in three of the population is getting cancer – but they are scared of the idea of amputation. Certainly patients with diabetes who are smokers are a guarantee for amputation.

Robin Hewings

Yes, smoking is a big issue in diabetes, and I am keen to pursue the background into that. On the graphic images on cigarettes there are gangrenous feet.

Said Habib

I have not seen that. No, show them an amputee.

Robin Hewings

Obviously if you look at the kind of people who smoke and the kind of people that often have problems – obviously this is a rough, broad generalisation – they do really go together.

Neil Carmichael MP

Yes, smoking is not a very good habit at all is it? I am sure you all agree with that.

Nick Chalmers

It did strike me as a relative omission in the document that you produced from this Group last time actually: smoking cessation measures. Smoking was mentioned briefly and lifestyle was mentioned to some extent, but in my opinion there could have been substantially more emphasis on smoking cessation and smoking control in that document.

Neil Carmichael MP

That is a really good point. We certainly have not won the battle yet over smoking. Young people are starting when they should not even be thinking about it and so on. One thing we are very keen to do is think about prevention. Jim and I have to go.

[*Neil Carmichael MP leaves the hearing*]

Jim Shannon MP

Before we go, may I ask a question? I am diabetic, and I see my GP twice a year, who does a complete check on me. Are you say that this will happen with every patient who attends their GP, or does it not happen already? I just wondered if that happens with everybody else.

Robin Hewings

We appear to be moving in the right direction, but there are still quite a few people who do not get them. Obviously the other thing is the check is a starting point for checking people are in the right place and getting the right care to move that forwards. The other problem is whether people are being referred the right way. It is good that you are attending your checks, but it is not universally the case.

Jim Shannon MP

I am surprised at that.

Robin Hewings

It can be difficult to get people in. That is often what the trouble is. Almost everyone should be invited. The issue is around people feeling it is an important thing for them to do.

[*Jim Shannon MP leaves the hearing*]

John Turner

I have been a member of Diabetes UK since I was diagnosed, going back 12 years. When I was on what I thought was my last possible help, looking for assistance, could Diabetes UK not have helped me?

Paul Bristow

I was really interested in your story. We hope this red card and some other work we have done internally would give you some better help, so you would more swiftly have got to the place that you got to.

John Turner

You must be aware of where these places are that offer the service.

Paul Bristow

I think there are very few places.

John Turner

That would be a help to your membership if you could lead them up the right path to the right place.

[*An offtherecord discussion follows*]

Gerry Rayman

It is interesting that the places that have really made a big difference on diabetic foot disease are those in whom the team has come together, has gelled and has been very passionate. One of my concerns is those passionate teams are going to disappear if we have the centralisation. As I said, we reduced our amputation rates by 75%. Now we have to send our patients to another area where the amputations are amongst some of the highest. It does not really make sense.

Martin Fox

In a way, will that force the work that needs to happen in that other area to improve their amputation rates if you are coming in there and having an influence?

Gerry Rayman

Yes, but there are behaviours and that is the key for a good functioning team. If you have a responsibility as a clinician for delivering a service then you would expect to have audited yourself, you would know where you are and you would be trying to improve that service. That is the behaviour we need to get throughout the country for lots of different specialist areas, but there is a lot of work to get there. We do not want to lose good functioning people or teams.

Martin Fox

That is the difficulty. We have few centres of excellence for lower limb diabetic foot and we have a lot of mediocre or poor, and it is how to effectively change that balance in the long term so that we have better poorer services and the bar is raised generally.

Gerry Rayman

It is very easy to go from a good service to a poor service if you take out the source and that is what is happening. My colleague from Nottingham – clearly they are doing a good job.

Said Habib

I totally agree with you. The problem with centralisation is you either get the DGH team on board with you, as it happened with us in Mansfield, or the opposite was Lincoln. They disagreed greatly. They said, ‘We’re not going to provide this service and they lost their team. It is a difficult issue.

Michael Edmonds

Dr Robertson, I think you made a really good point that the lower limb was the Cinderella of this condition. The centralisation drive was aneurysms and then carotids and then the peripheral vascular or from our point of view the diabetic was just tacked on as an extra. If you look at all the correspondence about centralisation in various areas throughout the whole land and there is very little attention paid to peripheral vascular and to the diabetic foot. As you said, it is a different entity. It is great that Mansfield in a sense are linking with that, but there is also the diabetic team. One of the central tenets that has been established is that the vascular team works very closely with the diabetic team. You have to have that very close link. If all the vascular surgeons go off to the central area you are going to lose that. We just think that this needs to be thought through again.

Hisham Rashid

I think centralisation is a good thing, but centralisation can be in the wrong direction. Your centralisation went in the wrong direction, whereas in Mansfield to Nottingham it went in the right direction. That is why we have seen the benefit. I think the centralisation should have been towards your centre, not the other way round. We are seeing it as centralising it in one place, but I think centralisation should be where the service is exceptionally good. This is where centralisation should be heading towards, not to just another centre, because it is a bigger centre.

Said Habib

They still run clinics in Mansfield –

Hisham Rashid

No, I am talking about the arterial service that is going to be delivered. It should be delivered where the excellent service is.

Said Habib

Do you know what happened? The problem that happened: because you move the entrepreneurialism to the big centres, that means you have to train the vascular surgeons who worked in the DGH because they join the big centres. That meant that they move all services to the big centres or they have to leave. They have no other option.

Hisham Rashid

The patient should be in the middle and this is what the Francis Report is all about.

Said Habib

We know that there was great debate about it, but in the end they said, ‘No, we can’t do it’. It will improve the work of the surgeon because instead of being one in five on-call they are now one in seven.

Martin Fox

With the drive to improve outcomes around aneurysms and having that centralised training and administrative support, will there be a knock-on positive effect that the lower limb will also be better managed in those units with regard to surgery?

Iain Robertson

I do not think we have evidence for that. We have fairly strong evidence for volume and outcome for aneurysms and without doubt we need to centralise aneurysms in order to get better outcomes from aneurysm related mortality and morbidity. We do not have the same evidence for peripheral vascular disease and even the evidence for carotid intervention could be argued as a little less strong as well.

Martin Fox

Do you think there may be a possible benefit of centralising the surgical training?

Iain Robertson

Centralisation works well for highly complex procedures that require a large support team, complex imaging and complex surgery. You simply cannot drive the volumes that are required here or the models of care that are required in the local community from the centre. Undoubtedly, we need a better system that operates on a local/regional basis that means patients who require very complex intervention get it. We are delivering a lot of intervention locally; we still have a massive amount of resource locally and to throw that away during centralisation is completely inappropriate.

Michael Edmonds

That model of care is dependent very much on continuity of care. To suddenly uproot a patient within the cocoon of that continuity of care and send them off to another centre for a vascular bypass from another team, another completely different environment is not in the interests of patient care. Then you have to get them back and I think there is a lack of understanding. It has often been said, 'We'll send them back the next day'. If you have seen a diabetic patient the next day after a bypass you cannot just put them in an ambulance and send them back. They need a lot more care and attention, so I think a model has to be developed that while the aneurysms are dealt with there, the diabetic feet are dealt with in the continuity of care where the diabetic team is. You cannot have the whole diabetic teams acting in one centre.

Nick Chalmers

We have certainly become aware of problems along those lines with capacity issues in our centre. We have looked at the access for people with critical limb ischemia who we are trying to keep as outpatients, and time between outpatient referral and having their arterial intervention done was 30, 40 or 50 days. That is too long, and a lot of that is due to limitations on availability of day beds in the hospital, which is nothing to do with the radiology or the vascular surgery department, but there are just so many demands on these day beds and elective treatment centre beds that they cannot accommodate all these urgent patients.

Michael Edmonds

So apart from the principles of the model, there is a sheer volume of diabetic disease that cannot really be accommodated in the centre.

Jonathan Valabhji

Can I make a point? I think there is another side to this as well. We are focusing on the centres that have lost vascular surgery skill to move to the hub. The reconfiguration has taken place without any marrying up of resource between diabetes teams and vascular surgery teams. Speaking as a

diabetologist who works at one of the hubs, we have had no increase in our own diabetes team capacity to support the added work that is landing in the hub under the vascular surgeons, which is another important consideration.

Gerry Rayman

That is the message that I have got from other centres around the country. The diabetologists are saying they are now inundated with patients that they do not have the resource to look after. It really has not been joined up.

Said Habib

Can I ask you as surgeon and physician, when you treat a diabetic, do you have a code to charge the CCG?

Jonathan Valabhji

Our clinic has a code, so our multidisciplinary foot team has a code.

Said Habib

Is the code different to treating any ulcer? I will give you an example. The reason I am saying this – and Ian agreed with this as well – is: if I do angioplasty on a patient with diabetes and if I do not mention in the report that the patient has diabetes I get £1,000. If I mention this is a diabetic ulcer I get £9,000, I think. The code itself does not specify; you have to mention it in the report so they cannot change.

Jonathan Valabhji

I think what we have seen in the last five years is a massive improvement in the coding of the comorbidity of diabetes because of the numeration[?], and I think generally, certainly across England, you are seeing 90%95% ascertainment of diabetes status on discharge with coding. I do not think the lack of tagging an appropriate code is a major problem now. I think that has been largely addressed.

Gerry Rayman

Can I make one other point? Patients with diabetes and diabetic foot problems have multiple comorbidities, so they do not just have a diabetic foot problem. They nearly always have cardiac disease as well or they may well have renal disease. They are very complex patients. Treating them like packages that you can export from place to another and bring them back is really not very good for these very elderly patients. We have certainly seen within our service a number of patients who have come to harm because of this moving between teams who do not know anything about that particular patient, do not know anything about their families, the situation back at home and so on. It really has not worked for the benefit of our patient.

Participant

Also Gerry, some of our packages – as you called them –

Gerry Rayman

I have not called them packages –

Participant

– have been lost by the post office. They get sent out from the hub, but nobody tells us they have been discharged. They are left and the district nurses do not know and then, all of a sudden, bang. There is a communication problem with this as well. There is a whole host of issues that need to be addressed.

Michael Edmonds

60% of our patients with ischemia are CKD 35 and 20% are on dialysis. With vascular intervention there is a possibility that there is a deterioration, so you really have a very paradoxical situation that that patient may go to another unit and then have to go to another hospital for dialysis, having left his previous hospital where there was a dialysis. It is bonkers.

Martin Fox

In centralisation of vascular services, did that include the radiologists moving or was it the vascular surgeons that…?

Said Habib

The radiologists will leave because there is no work to do, so they leave to join bigger centres.

Martin Fox

And the effect is that radiologists and vascular surgeons are centralised.

Iain Robertson

I would be careful saying that was always the case. You have to bear in mind that interventional radiologists provide other services in addition to vascular services. In a sense, by ensuring an equal distribution of vascular work through local and hub centres, we also secure patient care for things like haemorrhage control, nephrostomy access and various other interventional techniques. There is a big win-win for patients here in that we secure access to interventional radiology techniques. If we bring all interventional radiologists into centres then we are assuming that all these emergency patients will come into the centres too and we will have the same capacity issues around gastrointestinal haemorrhage or around acute kidney injury. There is a win-win for us here.

Michael Edmonds

From your radiological opinion, would you agree that the majority of interventional techniques with all the lower limb for the diabetes can be safely done in the spoke – in the periphery?

Iain Robertson

It depends whether you are asking me as an individual or as the BSIR representative. We have guidance for this as the society that we have developed as the Vascular Surgical Society. Quite clearly, it should be possible to deliver a significant component of these services, but they need to risk assess it locally because it will be determined a little bit by their local geography. We cannot mandate for every form of local geography and every form of support services, as you alluded to yourself. Intervening in a patient who perhaps has stage three chronic kidney disease – quite a complex intervention – in a hospital that has no renal support may not be appropriate, but in another environment it may be completely appropriate, though it is not an arterial hub. I cannot really mandate that, but we do think that it should be possible to deliver a significant amount of

peripheral vascular intervention in local hospitals. There is no other solution that will allow us to do it properly just now. We simply will not have capacity within arterial hubs to do this.

Jonathan Valabhji

Do we have a feel for how well vascular hubs are mapped to cardiological and renal hubs? The need for all three of those things in this patient group is crucial and I know one example of a large Trust not very far away from where we are sitting right now, where the vascular surgery hub shifts patients via ambulance three times a week for haemodialysis to one of the other sites in the Trust six miles away.

Paul Bristow

That is not unique.

Jonathan Valabhji

No, it is not unique.

Hisham Rashid

I think it is unique when you have a centre that can offer the whole service fully integrated on one side then moving these patients to a centre that has not got the service that becomes a unique situation. To move a group of patients who can fully be treated on one site comprehensively to a site that is not offering the service comprehensively is actually very unique. This is unusual and this is the concern about centralising without putting the patient in the centre of what you are trying to do. This is centralising all in one direction without centralising into the direction where the service is best served.

Jonathan Valabhji

I think it just backs up the point we have made earlier that I think the centralisation of vascular surgery services did not really look more broadly at the patients' needs in terms of where the big diabetes foot centres are, where the renal haemodialysis centres are or where the cardiological hubs are. As we know, if we just concentrate on the foot in this population we are probably going to be missing quite a few other things in terms of coronary heart disease, renal disease, etc.

Iain Robertson

I do think if we are aiming here to drive up the quality of services we will need a comparable set of very simple outcome standards in aneurysm and carotid intervention. It is very easy to see what we are trying to achieve with aneurysm intervention: a uniform standard in terms of reduction of mortality. Below that we can set a number of standards on the pathway that clearly support that. Just now, certainly from my perspective, I do not see that same clarity around critical limb ischemia, what standard of care patients should expect here and how we are going to deliver that. Once we map that out I suspect that it may become less of an argument about whether everyone comes to an arterial hub because it will not be possible for many units to deliver that level of service just using an arterial hub; it will be a distributed network that uses the full capacity.

Michael Edmonds

Major amputations is the only main outcome that we have at the moment. That is documented with CCGs and PCTs, but it is not directly related to hospitals at the moment. The data should be there,

but the CCG data covers the geographical area. As we said though, characteristically there is the aneurysm mortality, the carotid/stroke ratio or death ratio, peripheral vascular disease. As Hisham says, if you ask a surgeon, what does he say? It is a crude measure, but I think major amputation is the only one we have at the moment.

Iain Robertson

Do you feel that we have enough pathway measures? If you look at carotid intervention there are set pathway measures for how long each individual group has to assess the patient, ensure that they have operated on the patient. Do you feel the pathway measures are there for critical limb ischemia just now?

Michael Edmonds

They are in the sense of the foot pathway. They exist; I do not think they are being utilised as with the carotid, but it would be quite easy to see what the assessment is within the first day, how long it takes for the assessment at vascular and then the intervention.

Hisham Rashid

I think because the outcome in aortics and carotids is easy to measure we can easily identify the problem and we can work towards it. We can say if a patient is diagnosed with aortic aneurysm then you expect this patient to be treated within the next couple of weeks or so. Carotids now is measured by the hour to intervene; we are supposed to intervene in carotid surgery within 48 hours from the symptoms, not even the time the patient has referred to us. This data has been published now in the public domain. When it comes to legs I do not think there is agreement about what we should be doing. In my presentation I always present that there are only two options for treating peripheral vascular disease – either that is angioplasty or a bypass, or you can use the two modalities together in a hybrid technique.

If you ask lots of vascular surgeons what options you have, amputation comes on top for treating peripheral vascular disease and I think this is the problem. It is a cultural problem that we still consider amputation is a success of treatment, whereas we consider amputation as a failure of other modalities of treatment – bypass, angioplasty or hybrid. Then when these techniques have failed for different reasons amputation is an outcome of failure not an option of treatment. Unfortunately this is not the shared opinion of vascular colleagues across the UK.

Michael Edmonds

We are starting to think of the foot in trouble as foot attack, like a brain attack and a heart attack. One criterion should be the delay or time for revascularisation. We also have thoughts that often these people are infected and, as with a neutropenic sepsis, there is now a door-to-needle time for starting antibiotics. That should also come in with diabetic foot to tighten up the criteria for infection.

Iain Robertson

At present I would imagine that units are much more familiar with their time to pathway stages in aortic or carotid intervention that they are in critical limb ischemia if they have any knowledge of them at all.

Michael Edmonds

There is not the sense of urgency.

Gerry Rayman

The problem with diabetic foot as well is it is quite different in that the surgical intervention is not necessarily the final outcome, whether or not it was successful. The wounds are complex; they take time to heal; the patient needs follow-up; they need the debridement; they need dressing. It really goes on for a long time and it does not even end with the closure of the wound because, as you know, they restenose and so on. It is a complex disease that needs constant vigilance by the multidisciplinary foot team.

Hisham Rashid

You are right to describe the patient journey that we always talk about. The patient journey in diabetic foot patients is completely different from the patient journeys in other pathologies in vascular disease. The surgical or the radiological part of the service is a very small part of a very long journey and, of course, patients will continue to be looked after in a multidisciplinary approach and might need the radiologist to intervene or the vascular surgeon to intervene again. This is a short episode, though, or a spell of treatment in a very long journey. We cannot take that as the main event and then structure the service based upon that short part of the event. The pathway is a lot bigger than just the bypass or an angioplasty.

Michael Edmonds

That is why you need a multidisciplinary team that is going to be ready for a long innings; it is a Geoffrey Boycott innings. It is going to go a long way; it is not T20 cricket. That is why these multidisciplinary teams are very important.

Jonathan Valabhji

Pragmatically, as a group, can I just ask how we think this should be tackled? I think I am right in saying that pretty much all of vascular surgery services are to be commissioned by NHS England rather than by locality, by CCG. It comes under specialised commissioning, which obviously fits very nicely with the hub model that we in the diabetic foot world have problems with. I suspect we need a plan of attack or a goal as to what we think the solution is to accommodate both best treatment for aneurysms and carotids as well as best treatment for diabetic foot.

Said Habib

Can I suggest something? I will give one example. When we started treating aneurysms we started treating big aneurysms, certain agents[?], we fought hard through both societies to get this surveillance. Here we are talking about treating a condition late in the disease and I think a patient with diabetes would – you are a diabetologist, but you only see them when they start to have complications. According to NICE, all diabetics should have duplex, but that does not happen because diabetics are looked after by general practitioners and it is only when they develop complications, when the arterial occlusion is too late or when the ulcer is to big to deal with, that we see them. So actually the root of the problems start from the early stages and that is what needs tackling.

Jonathan Valabhji

That does not really address the point I was making –

Rachel O'Connor

He is going to be presenting at the end.

Wayne Bartlett-Syree

I would just like to say as the man responsible for vascular disease in NHS England you are stealing the wind from my presentation.

[*The formal evidence session reconvenes*]

Neil Carmichael MP

Sorry for that interlude. I am sure you have been having a more enjoyable time than you would have done if I had still been here. Our next speaker is Mr Martin Fox – welcome. You are a vascular specialist at North Manchester Leg Circulation Service.

Martin Fox

I would like to bring in a little bit about the story from the north of England and from outside the hospital gates. It is very related to peripheral arterial disease (PAD) and based on our service model. I have also got a patient with me today, Gerald. It is embedded into an audio clip, so hopefully it will work. Currently I would suggest to you that PAD frameworks in the NHS are often well-intentioned across the country but they are very weak. We have had a consensus by most vascular leads that this leads overall to under-diagnosis and under-treatment, resulting in preventable mortality and morbidity. It is fair to say that is the state of play across England and the UK with PAD.

When you look at perceptions of arterial disease, we have had successful campaigns like this that are all over the place in primary care now, and people are starting to realise that they mean something. Yet if you look where the picture stops we have nothing about the lower limb on there. We have talked about Cinderella services, and I think PAD itself is a Cinderella service in the NHS at the moment. We have great, very striking campaigns for things like heart disease that caught my attention when they went on the billboards, and we have the joke that is lower limb vascular disease – achy legs, varicose veins, twinges, little wounds. I think we really have to turn this around. We have been going for too long with no marketing and no real pressure on the central agenda around vascular disease to include PAD.

There is loads of guidance out there: the international guidance, the national guidance, the NICE guidance, Cochrane Reviews; the QOF points have come in, which are quite useful, but we need some energy behind them. There is all the diabetic foot guidance, but usually we have no clinical leadership or PAD strategy in most of the Trusts across the UK. The situation for patients and clinicians is one of general confusion about who is responsible, who is delivering what, who holds responsibility for PAD and, 'Is it somebody else's game and not mine?'

We have talked a lot today about amputation, wounds and those sorts of outcomes. When we look at the big picture of PAD and you look at what happens to 100 people – this is all data that is still fairly reasonably pitched – out of those 100, less than five will need amputation. 30 of them will die within five years, in your core[?] population, of a heart attack or stroke and yet we are so

focused on lower limb. As a podiatrist, I have been very focused on lower limb for the last 20 years, but I am becoming more interested in how we tackle the bigger elephant in the room, which is cardiovascular risk. Most of my patients have no idea about their cardiovascular risks. Diabetic or not, they just do not understand it; they do not get it and therefore they do not know how to modify it and we do not modify the disease progress.

This is Gerald. Let's see if we can hear him speak.

[*Recording played*]

Gerald is indicative of the failure as an MDT to deal with this properly. He has seen multiple vascular surgeons, diabetologists, podiatrists, nurses and GPs; he does not have a bloody clue about vascular disease. He has already had an angioplasty – what is going on? If we do not deal with this properly from the core, what are we doing?

In North Manchester we are trying to address it now. I have been given the privilege of running a PAD service with the emphasis on early diagnosis and supporting people with PAD to be better managed. For about 15 years, the PAD population was part of my problem – PAD in my patients with diabetic disease. I must admit I did not treat it very seriously. It was always the worry, concern and thing you did not want to see when you assessed the patient. It was not something that I dealt proactively with. I am now in a position where I can do that as part of my service. We have been commissioned to do this in North Manchester, raising awareness of the disease, offering people timely appointments for assessment and diagnosis from GP referrals, given the choice of locations, performing the usual non-invasive tests that are recommended by NICE, educating patients on CV risk and healthy options as well as legs, promoting best medical therapy with our GPs – putting a bit of rocket up the backside sometimes to get that going – negotiating rather than advising key health changes around smoking, exercise and wellbeing, offering support services for people and, of course, referring people with severe or deteriorating circulation to the diabetes or the vascular team at the local hospital.

This is what we are doing. We are raising awareness by getting ourselves onto page 32 of the local newspaper underneath a guitar-strumming rugby player. That is not a good start, but it is something. We have done a poster campaign around achy legs; we are out in the markets of Harpurhey in north Manchester, which is one of the scary parts of north Manchester – you hang on to your Dopplers and tie them to your belt when you are out there – but we are basically out there doing spot checks and raising awareness. One lady happened to sit down with a cigarette for a bit of a breather and because she had really painful legs – she did not want to see us – we managed to cajole her into taking her shoes off and we found a critical limb ischemia. This is a lady that would not come to a GP traditionally and certainly would not go to a hospital. We managed to convince her to get herself to the vascular team and she was successfully treated. She was walking around in pain thinking it was arthritis.

We go out on our motorbikes around the communities of north Manchester and this is where we do the diagnostic assessments – closer to home; the femorals, the popliteal, the ankle brachial pressures, the medicine reviews are all done in community clinics. We are a spoke of the spoke of the vascular service in effect, but we are where it counts: where the patients will come. We offer personal PAD plans for each individual, where we give them the basic advice on arterial disease and we negotiate change around the major significant risks that are modifiable. We talk our patients through it in plain English. It is simple really. We offer NHS-supervised exercise for all, including our patients that are quite late in the day for this sort of thing. We still want to engage.

How many of our amputee population are offered supervised exercise on the NHS at the moment? Not many.

In terms of how we are doing, we have managed to get an integrated care pathway from early detection right through to critical limb ischemia agreed by our GPs, commissioners, managers, vascular surgeons, radiologists, nurses, specialists and whoever. It is like herding cats, but we have got there; we finally have consensus on the very simple basic principles of PAD. It is not rocket science, but we managed to achieve it. NICE has endorsed this as well on our service model, which is getting somewhere with recognition. We have seen about 2,000 people. Of those, we have diagnosed PAD in 700 and we have sent about 159 on to our vascular surgeons. Our commissioners like this because we do not send everybody on who does not need to go. We gave our surgery for people that most need to go, so their waiting rooms are no longer full of achy legs.

Patient satisfaction is high. They are happy. They get offered it close to home in plain English. They get a good assessment and they get onward referral. We save money on the costs as well, so if you embed this sort of service model in an NHS Trust you will save roughly £75,000, give or take a few thousand either side, on the referral costs alone. This is what we do when we compare a hospital tariff versus community service, including the group of people who we subsequently send on to the surgeons because we do not want to pretend to be so cheap. We add on the 25% that we send on and this is our total cost compared to the equivalent 1,000 direct referrals to the surgeons. We are a bit of a no-brainer. Every area should have this service model.

When I am eating my healthy Friday lunch in Harpurhey café, which is my thinking point for how we really tackle the population, I think about how our PAD service model is not yet sustainable and it is not widely established. I am going to die of a heart attack in about 15 years' time if I carry on like that. I would like to offer you a vision for PAD, which is more about the whole population and not so much about the focus of what we used to hear about in relation to amputation and surgery. That is very important, but only small portion of the PAD population. I am talking about the whole picture. We need to plumb in to the bigger national strategy. It is as simple as that. We need to have a paradigm shift. It is life and limb that we are trying to affect here, not just limb. We need to create a PAD lead in every NHS Trust, such as a specialist nurse, a specialist podiatrist or somebody with some passion and skills who can work with vascular teams to maintain competence. I would strongly advise that they need to be placed in communities and we need to ensure that an integrated PAD pathway of services are available and plumbed from public health, through primary care, through diabetes and through vascular. We have achieved it partially in North Manchester. We are not where we want to be yet, but we are going in the right direction. I would urge you that we can replicate this model all over the country.

I am sorry if I went a little bit over my six minutes.

Neil Carmichael MP

No, you did very well. You have pressed a lot of buttons there and you even mentioned smoking.

Nick Chalmers

– and supervised exercise. One of the reasons we are so snowed under and unable to provide a good service to the critical limb ischemia is we are inundated with claudicants because there is no supervised exercise programme locally. That is exactly what we need.

Martin Fox

We have had one commissioned Manchester-wide, partly because Manchester dies early so the commissioners have given Manchester an NHS-funded service. We have plumbed our PAD patients in to that service and designed a personalised programme for them.

Nick Chalmers

I think that is really central here.

Neil Carmichael MP

Are there any further questions? A good one would be: if what you are saying applies to Manchester, and you are obviously very passionately proud of it, was across the United Kingdom how many more limbs would we save? I know you have mentioned life and limbs, but the question is limbs because that is something we can measure.

Martin Fox

I would suggest to you that what we have done by creating this is we have managed to streamline the referrals that go to vascular; we have freed up the capacity to see critical limb ischemias sooner. We cannot prove anything yet, but our hospital Trust covers four PCTs and the amputation numbers in the last two years in our particular patch compared to the other three have gone down a little bit. We may be having an effect, but I would not claim yet to have the data to support that. We can refer people quicker when they are in the severe end of the spectrum of PAD. I suspect that particular population is where we will make the biggest gains. We recognise them earlier and we get them in quicker to the diabetes and vascular teams.

Neil Carmichael MP

Are there any further questions?

Martin Fox

Can we have this across the UK? Does anyone support it?

Said Habib

This is the point I made that you need to tackle it from the start rather than waiting until they get complicated.

Neil Carmichael MP

Martin, thank you very much. That was a good presentation. That was very impressive, thank you. Next and last is Wayne Bartlett-Syree from NHS England.

Wayne Bartlett-Syree

And my colleague, Rachel O'Connor, who is National Programme Director.

Neil Carmichael MP

Okay, great. Rachel, are you going to be speaking?

Rachel O'Connor

Yes, I will start if that is okay.

Neil Carmichael MP

Yes, that is absolutely fine. You have three minutes and so has Wayne.

Wayne Bartlett-Syree

We will not take that long. Just following on from your comments about the NHS having very long job titles: I am Programme of Care Manager for Internal Medicine in the South region and Accountable Commissioner for Vascular Disease, Interventional Radiology, Interventional Cardiology and Specialised Imaging.

Neil Carmichael MP

There is not even an anagram.

Wayne Bartlett-Syree

I probably could and probably should not mention it. Due to time we are going to float through some of the original bits and probably come on to this one to start.

Rachel O'Connor

Just in terms of a brief overview before the presentation, we are going to talk you through a national overview of the NHS England commissioning responsibilities for specialised services, talk you through the clinical reference group for vascular disease and, importantly, picking up lots of the points we have discussed over the last hour or so – which we are very passionate about – is the work programme going forward for vascular disease through that clinical reference group and nationally.

From 1 April, NHS England became responsible for all of specialised services and we have responsibility for ensuring a national and equitable commissioning of those specialised services. To put that in very simple terms, what we describe specialised services as is usually highcost/ lowvolume and services that are only provided in a smaller number of providers because of the cost and the expertise that is required to deliver those services. In terms of vascular disease, what we have commissioning responsibility for is all adult specialised vascular services. That includes vascular surgery, vascular interventional radiology services and those services that are delivered on an outreach basis as part of a provider network as well as the centralised services.

In the governance structure of NHS England, there is a programme of care for internal medicine and a specific clinical reference group for vascular disease. This is something we are really passionate about with NHS England: that we do the services that we design and the services that we commission in a national equitable way, but that those are designed with our patients and our clinicians at the heart of developing those services. Each of those clinical reference groups is made up of a clinician that works in each of the senate areas across England. We have representation from four patient carer members and we also have representation from our affiliated organisations.

I would really like to point out to our colleagues here in the room how you engage with us at NHS England. We make sure that we work with you through our work programme. You can register through NHS England's website to be an affiliated and a stakeholder with our clinical reference

groups. I would really encourage you; it is really important that we continue to hear our patients and our clinical voice in the work that we do.

I am going to hand over to Wayne, who is going to talk you through the work programme for the clinical reference group for vascular disease.

Wayne Bartlett-Syree

First of all, can I say thank you for the discussion whilst the Chair was out of the room. It was an incredibly valuable discussion and some of the issues and challenge that were raised were actually no real surprise to me. Reconfiguration of any sort of any service always causes concerns and brings up a number of challenges. There was a discussion recently I was involved in where they were talking about the call for action and somebody actually blamed Queen Victoria for the fact that we were given loads of hospitals during the Victorian times and health services more evolved rather than developed through a strategy or plan. That means that hospitals have developed services because sometimes back in history there was a consultant who had a general interest in that and it built up. It means that when you come to reconfigure services you do not necessarily have all your ducks lined up in the right places.

It causes issues with the fact that when you centralise some things you do leave some services behind. One of the really important things from my point of view is I am certainly not a centralist; I am much more of a collaborist. From that point of view, one of the really key things of our work programme going forward is actually the standards for non-arterial centres. There has been a lot of focus on the work of the arterial centre around aortic aneurysms and carotid endarterectomies, but actually not thinking about what that means for the spoke sites in terms of what services they should be offering and whether those should be operating. We are only at the part of starting those conversations about what that should be looking like.

Part of that is also the work around lower limb amputations. I chaired a call last week where we were looking at what the standards should be with the members of the CRG for the specification around lower limb amputation. We are aware of work that is starting both within the Vascular Society and the British Interventional Radiology Society, but also NCEPOD in terms of collecting data around lower limb amputations and obviously this group here. Within NHS England, we would welcome making sure all that work is aligned, that we are not working against each other and actually we are all trying to get to the same benefit, which is making sure the patients get the right treatment in the right places.

To that end, one of the key things that we are looking to introduce is what is referred to as an operational delivery network. Some of the things that have been described there are in place for trauma and critical care already. In essence, it is the model that Nottingham is discussing in terms of a hub site that does a lot of the specialist work and has a lot of the specialist training, but they do not leave the spoke site to get on with it and not discuss with them or look to see what other options are available. That would also help them help some of the stories that we heard from the patients in terms of actually it is a whole group of clinicians and hospitals working in a multidisciplinary team across different sites to determine what is right for the patient, not actually individual Trusts and individual surgeons working as part of their team and not collaborating. An operational delivery network is something that we are really strongly wanting to put forward for vascular disease because it will help them bring out a lot of those benefits and make sure that we are able to maintain services within the spoke sites and not run on this direction towards having everything gravitating towards the centre because for the reasons that we said centres will struggle with capacity; they will struggle with recruitment and other things like that in those areas.

Rachel O'Connor

If you pick up the learning from trauma, where they have implemented operational delivery networks, you also pick up the point the point around culture. You make sure as a network you instil that culture of good care and good treatment driven by really important protocols that are agreed across the network about what care can happen where and at what place, and how you support that with good outcome measures to make sure that what you are constantly keeping abreast of what you have implemented to make sure that that quality is maintained.

Wayne Bartlett-Syree

I am not going to go through the rest of the main pieces of work, but just to summarise, some of the things that we are going to be making sure that this is all linked into is what we refer to quality dashboards in terms of whether we know where we are as Commissioners in terms of what we are purchasing and the outcomes that we are trying to achieve, but also to make sure that the strategy that is in place for the delivery of vascular services is one that is really patient focused, makes sure the patient is getting the right care in the right place by the right team and, overall, that we actually do start to deliver something that we do not see peripheral vascular disease as a Cinderella service and we see it is a core element of the whole range of vascular diseases and treat it in that way.

Neil Carmichael MP

Thank you very much. That was quite a comprehensive thing.

Rachel O'Connor

Yes, there is a lot to say. We will send the slides around because there is some background detail. We are more than happy to do that.

Neil Carmichael MP

That would be very useful because two of the slides were surprisingly complicated.

Rachel O'Connor

It is quite busy, yes.

Neil Carmichael MP

You already have a question. Go ahead.

Jonathan Valabhji

Apologies I did not introduce myself earlier. I am Jonathan Valabhji, the National Clinical Director for Obesity and Diabetes and also with you at NHS England. As it so happens, we have the option to join as co-chairs the various clinical reference groups; I will be sitting on the vascular surgery one as well. An operational delivery network would be an excellent idea and I would be happy to help in any way I can. We need to be very mindful here that we have hub services commissioned centrally/nationally by NHS England dependent on the linkage with peripheral services or CCGcommissioned services – which is all of the diabetic multidisciplinary foot work. From experiences to date in the obesity field, where bariatric surgery is commissioned by NHS England and the other parts of the patient pathway are commissioned by CCGs, we have to ensure that we have that joined up effectively. That will be a challenge.

Wayne Bartlett-Syree

Certainly. Currently NHS England is running a number of pathfinder pilots where we are looking to join up the care where patient pathways – I was really pleased also to see that we are starting to talk about the preventative side of things. That is the work that the Local Authorities and Public Health England do in terms of disease prevention. Ultimately, vascular disease and vascular surgery at a tertiary level is really the fire-fighting service. It is a bit like the fire service going around starting fires in order to put them out. We do not want to be doing that; we need to be starting to put smoke alarms into places to actually prevent that from happening.

In essence, one of the things I will be looking to introduce is a pathfinder pilot programme, if successful, for peripheral vascular disease which will see the end-to-end. That is the prevention, the primary care and tertiary care all linked up. All of that is commissioned by different organisations now.

Neil Carmichael MP

Just so you know, there is a film called *Fahrenheit 451* where firemen do go around burning things. They burn books to stop people reading them. It is a futuristic film.

Michael Edmonds

We have heard today that aneurysm care may be best suited to centralisation and we have heard different views today that peripheral vascular may not be best-treated. How does NHS England resolve that dilemma? What is the mechanism for you deciding which is the best way?

Wayne Bartlett-Syree

That is always one of the great challenges about reconfiguration. It is about what it does to workforce requirements. I forget the name of the organisation, but Health Education England is our partner organisation that we work with in terms of establishing what the right workforce requirements are in terms of the number of trainees coming through to support sites and centres. We know one of the issues with vascular surgery particularly is that the numbers are shrinking and there is a difficulty in terms of recruiting trainees compared to other surgical specialities. One of the drivers for reconfiguration is sometimes workforce requirements, although the example that was given in Nottingham is actually moving from one in five to one in seven; it is not a huge extreme, but I do know in the south at the moment we have one vascular service where there is a single consultant operating, doing 99% of the activity, only supported by two colleagues doing 1% of the activity. Going forward that is not sustainable for that organisation, but in essence that surgeon is getting very good outcomes for that population. There is an issue around the recruitment and potential of vascular surgeons to support both hub and spoke sites. That is where operational delivery networks come in: is it about the spoke site necessarily employing surgeons or is it actually about the network providing surgeons across a geographical area and a number of Trusts?

Rachel O'Connor

Ultimately, where we would start from NHS England is working with our colleagues through the clinical reference group and our affiliated organisations to look at the standards for the delivery of care in those models and the outcomes, based on that developing the specification alongside that for the hub and spoke delivery, and then from that testing that locally. There might be different solutions as we have heard earlier depending on geography and depending on the expertise available. That is what has happened with trauma units, as an example. It allows you to develop a

degree of flexibility, but we must ensure that we keep the consistency of the offer, the standards and the outcomes the same. Our patients and our public would expect us to commission in that way.

Michael Edmonds

It seems the centralisation process has gone ahead very much and very quickly. Do you have data to support that? We have data supporting treating diabetic foot in the spokes – our classical way – and now suddenly these are going to be taken into the hubs. Do you have evidence that that is in any way better?

Wayne Bartlett-Syree

Not on the peripheral vascular disease, but certainly on the aortic aneurysms and to some degree on the carotid. I appreciate the comments earlier about the carotid endarterectomies. It is not just the clinical evidence around the outcomes better for patients; it is also about whether there is enough resource within those Trusts to deliver the whole multidisciplinary team that is required. There are different factors that lead to centralisation; it is not just the clinical outcome. This is where we come back to operational delivery networks. I do not think everything has been pulled into the hub in all places. I know that it has in some areas, but not in all places. With the work that we are doing around the standards for the non-arterial centres we will actually start to see work coming back out of hubs, coming back into the spoke sites where it can be managed safely as part of that delivery network.

Iain Robertson

I am very supportive of your concept of operational delivery networks. My only concern here is they are coming quite a bit after the vascular centralisation agenda. There has been an element of disruption and there has already been some disruption within clinical teams. I would urge you to get the standards for non-arterial hubs and operational delivery networks as active soon as possible if we are going to try and preserve that model in a meaningful way.

Wayne Bartlett-Syree

That is certainly my plan to get those. I have only been in position since June, so I am recognising as soon as coming in that actually we have missed a trick in terms of concentrating just on the hub centres and not concentrating on the spokes or setting up the delivery networks on time.

Rachel O'Connor

Part of moving that legacy project into NHS England is to enable us to look at how we deliver that configuration.

Neil Carmichael MP

Thank you very much indeed, Rachel and Wayne. That was another good presentation, and it stimulated discussion there. You had a general discussion whilst I was not here, so we are actually on time. Does anybody have a burning comment they want to share with us? A week on Friday is the deadline for written evidence, so just bear that in mind. It has been a pleasure to chair this event. I have thoroughly enjoyed it and I hope you have. Above all, I hope you have gained something from it. I just want to thank all the speakers again – Wayne and Rachel, but also our two patients, Dr Rayman, Ian, Robin and Martin. Thank you all very much indeed. We will carry on with this operation.