Cynulliad Cenedlaethol Cymru
The National Assembly for Wales

Y Pwyllgor Iechyd, Lles a Llywodraeth Leol
The Health, Wellbeing and Local Government Committee

Dydd Mercher, 21 Hydref 2009
Wednesday, 21 October 2009

Cynnwys
Contents

Aelodau'r pwyllgor yn bresennol
Committee members in attendance

Lorraine Barrett	Llafur Labour
Peter Black	Democratiaid Rhyddfrydol Cymru Welsh Liberal Democrats
Irene James	Llafur Labour
Ann Jones	Llafur Labour
Helen Mary Jones	Plaid Cymru The Party of Wales
David Lloyd	Plaid Cymru The Party of Wales
Val Lloyd	Llafur Labour
Darren Millar	Ceidwadwyr Cymreig (Cadeirydd y Pwyllgor) Welsh Conservatives (Committee Chair)

Eraill yn bresennol
Others in attendance

Yr Athro/Professor Kjell Asplund	Cadeirydd y Pwyllgor Llywio, Riks-Stroke Chair of Steering Group, Riks-Stroke
Ruth Crowder	Coleg y Therapyddion Galwedigaethol College of Occupational Therapists
Janet Ivey	Coleg y Therapyddion Galwedigaethol College of Occupational Therapists
Andrew Jenkins	Parafeddyg Ymgynghorol Consultant Paramedic
Yr Athro/Professor Bo Norrving	Riks-Stroke Riks-Stroke
Deborah Pawsey	Coleg y Therapyddion Galwedigaethol College of Occupational Therapists

Swyddogion Cynulliad Cenedlaethol Cymru yn bresennol
National Assembly for Wales officials in attendance

Carolyn Eason	Gwasanaeth Ymchwil yr Aelodau Members' Research Service
Steve George	Clerc Clerk
Abigail Phillips	Dirprwy Glerc Deputy Clerk

Dechreuodd y cyfarfod am 9.16 a.m.
The meeting began at 9.16 a.m.

Cyflwyniad, Ymddiheuriadau a Dirprwyon
Introduction, Apologies and Substitutions

[1] **Darren Millar:** Good morning. I welcome committee members and any members of the public to the meeting of the Health, Wellbeing and Local Government Committee. I

remind you that headsets for both simultaneous translation and sound amplification are available in the public gallery. If anyone has any problems using these, the ushers will be able to help. You may wish to note that the simultaneous translation feed is available on channel 1 while channel 0 amplifies the language being spoken.

[2] I would be grateful if everyone could ensure that all mobile phones, BlackBerrys and pagers are switched off so that they do not interfere with the broadcasting and other equipment.

[3] If it is necessary to evacuate the room or the public gallery in the event of an emergency, everyone should follow the instructions of the ushers who will be able to guide you to the appropriate exit.

[4] Finally, I remind Members that the microphones are operated remotely, so it should not be necessary to press the button to activate them.

[5] I think that we have been notified of one apology today: Andrew R.T. Davies. There are no other apologies or substitutions that I am aware of. I think that Irene is going to be joining us soon.

[6] I invite Members to make declarations of interest under Standing Order No. 31.6. I see that there are no such declarations.

9.18 a.m.

Ymchwiliad i Wasanaethau Strôc: Tystiolaeth gan Riks-Stroke, Sweden drwy Gyswllt Fideo
Inquiry into Stroke Services: Evidence from Riks-Stroke, Sweden via Video Link

[7] **Darren Millar:** I am delighted to say that we are taking evidence this morning by video link from Riks-Stroke in Sweden. I am extremely pleased to welcome Professor Kjell Asplund, the chair of the Riks-Stroke steering committee, and Professor Bo Norrving, also of Riks-Stroke. Welcome to you both, gentlemen. We are delighted that you are able to give us some evidence today on your pioneering work in Sweden. A copy of your PowerPoint presentation has been circulated. I think that Kjell is going to take the lead here. I invite you to give us an opening presentation and then we will open the meeting up to questions.

[8] **Professor Asplund:** Thank you for this opportunity to present Riks-Stroke. Perhaps we should start by presenting ourselves. I am Kjell Asplund. I am a retired professor of medicine and retired from a position as director general of the National Board of Health and Welfare, which is a governmental organisation in Sweden. I was the chief medical officer of Sweden.

[9] **Professor Norrving:** I am Bo Norrving. I am a professor in neurology at Lund University. I have a background in clinical stroke research of about three decades. I have also been involved with the forming of Riks-Stroke and, internationally, I have also worked with the Helsingborg declaration of stroke management in Europe, setting strategies for 2015, which was initially originated by Kjell Asplund. I am also the current president of the World Stroke Organisation and the vice-president of the European Stroke Organisation. I am one of the European editors of the journal *Stroke*.

[10] **Darren Millar:** Thank you. We are very grateful to you for taking the time to join us.

[11] **Professor Asplund:** We thought that we would make a 15-minute presentation and then we will have some 25 minutes for discussion, if that is okay with you.

9.20 a.m.

[12] **Darren Millar:** Delighted.

[13] **Professor Asplund:** You have the handouts. Riks-Stroke is the Swedish stroke register—a quality register—that started in 1994, which is funded publicly by the county councils and the Government. It is a voluntary register on paper, but all the 78 hospitals admitting acute stroke patients have more or less voluntarily joined Riks-Stroke. We include strokes in patients of all ages. We have a follow-up by questionnaire at three months, which is administered by each hospital, and also a year after stroke, which is centrally administered. I will come back to that.

[14] The primary aim of Riks-Stroke is to improve quality of stroke care in all hospitals in the country. We measure both processes and outcomes and put a special emphasis on patient-reported outcome measurements—PROMs. It is important to recognise that research is a secondary goal, but we are using it increasingly since we have now accumulated close to 300,000 stroke patients. This also becomes a valuable source of information for research.

[15] Moving on to technicalities, we started with paper protocols then submitted the data from the hospitals to the national secretariat on diskettes. We now use an internet-based registration system and we have pilot studies to transfer data directly from computerised medical records. All the hospitals have computerised medical records, and we have one hospital that is using direct data transfer. There is a more ambitious national project for all the quality registers in Sweden to have automatic transfer of data, which will save lots of work in the hospitals.

[16] The hospitals have immediate access to their own data. We have provided them with a simple statistical package, a presentation package, and we give annual feedback to the hospitals about their time trends, how they relate to other hospitals and so on, and we also have an open-access website where hospitals and county councils are compared for quality.

[17] We have done various validation studies and at least 82 per cent of all acute stroke patients are included. We miss some early deaths immediately after arrival in hospital. Those that are not admitted to a stroke unit are less likely to be included, as are elderly in nursing homes.

[18] We have a good response rate, we think, on the follow-up questionnaire: 87 per cent of all survivors respond themselves or with the help of next-of-kin.

[19] Next comes some historical data. If you want to build a quality register like this, it will take some time. We included about two thirds of all hospitals right from the beginning, but it took us four years to convince the last hospitals to join. Evidently, there was a certain pressure on the last hospitals to join Riks-Stroke.

[20] The next slide shows the accumulated number of events and, as you see from the graph, in the beginning it took us some five years before we got a constant rate of inclusion, about 25,000 events per year.

[21] What do we measure? We have an ambition to measure the entire stroke-care chain from pre-hospital, acute hospital admission, nursing, rehabilitation and secondary prevention. So, that is one dimension. The other dimension is to measure both processes and outcomes. We have had an extensive discussion on where to put the emphasis, but I think that we have reached a reasonable balance there.

[22] Then we try to cover various dimensions of quality as defined by the American Institute of Medicine. There is a Swedish application of this, which includes six dimensions of quality: evidence-based, safe, provided in time, distributed fairly, patient oriented, and cost-effective. I will just show some examples from Riks-Stroke from these dimensions.

[23] The first example is about the proportion of patients treated in a stroke unit and this has, as you see from the graph, gradually increased and now more than 80 per cent of all acute stroke patients are cared for in a stroke unit, which is an evidence-based form of stroke management.

[24] The next slide shows, very poorly, that there are variations in the proportion of stroke patients treated in hospital stroke units. You do not see the difference between stroke units and general wards, but at the bottom there are some hospitals—and some are large hospitals—where only 50 per cent of patients are treated in a stroke unit with half still being treated in a general ward. However, in the majority of hospitals at least 85 or 90 per cent of stroke patients are treated in the stroke units.

[25] Then we have two figures on one of the medical treatments—acute thrombolysis—which has been monitored in Riks-Stroke since it was introduced in 2003. There are now between 7 and 8 per cent of patients receiving this treatment, which may seem low but few countries have a higher rate at this time. As shown on the map, you will recognise that there is substantial regional variation. Some of the counties are slow to pick up this treatment.

[26] Moving on to safety, this is just one example. High-dose heparin for ischemic stroke was shown at the end of the 1990s to be inappropriate treatment for ischemic stroke. The side effects are greater than the beneficial effects. We have monitored how this has been discarded in Swedish healthcare, and we have decided now to cease this monitoring because we have reached our goal.

[27] As you can see, the median time has slowly decreased from onset of stroke symptoms to arrival at hospital. It is now down to two and a half hours. There still much to do still.

[28] On the dimension of fair distribution, one example is that we have looked in detail at sex differences and found very few sex differences in stroke management, except that more men than women are treated with statins as a secondary prevention measure after stroke. We think that that has something to do with men having more risk of concomitant ischemic heart disease.

[29] On the patient oriented dimension, one example is the proportion of patients that are dissatisfied or very dissatisfied with their acute stroke care. There are very large variations between the counties. Stockholm has always been at the top, however, and this leaves room for speculation that perhaps the expectations are much bigger in a more sophisticated city than in rural areas, in relation to the quality of care.

[30] When it comes to the sixth dimension—cost effectiveness, optimal use of resources—we have just started looking at that so it is still an area under development. It will take us a few years to provide good comparative data between hospitals and between regions or counties on the cost effectiveness of stroke care.

9.30 a.m.

[31] I have shown you some process quality indicators. Some key indicators of outcome are survival, primary ADL functions—activities of daily living—at three months, institutionalisation at three months, the support needed from family members and social services, smoking cessation, low mood, self-assessed general health, and quality of life.

[32] The last slide concerns a few areas. There is much that still needs to be developed, but these are perhaps the most pressing issues. The first is the automatic transfer of data from electronic medical records. That is very much double the work: writing the medical records and then transferring the data to the database. Therefore, it should be automated.

[33] We need better adjustments than we have now for case mix differences, especially when it comes to outcome measures. We also need links to other registers, particularly to analyse socioeconomic differences, such as whether stroke care is equal depending on social background. We have some presentations for patients and citizens, but they need to be much improved, in my opinion. We have to make better use of the data in the implementation and decision-making processes.

[34] **Darren Millar:** On behalf of the committee, I thank you for that presentation. It was fascinating. There was a lot of information for us to take in. I ask Bo whether he could just tell us briefly what the diagnosis, treatment and care arrangements are in Sweden. Kjell has very ably demonstrated the information about the register, but what is the treatment and diagnosis like? Take us through the journey of a typical stroke patient.

[35] **Professor Norrving:** This has been quite a development over the past 10 to 15 years, and it goes very much in parallel with the development of the Swedish national guidelines for stroke. We have the new revised version, which will be issued next month, but the work on it was started in 1996, I think. It was the first time that the whole of Sweden got together to make central recommendations on the standards of care, on what should be done in the acute phase, in the follow-up, and in rehabilitation. These national guidelines have been very close to what was then monitored in Riks-Stroke. So, it has been possible to see the impact of the recommendations in the transition into clinical practice.

[36] The recommendation is to carry out a standard assessment in the acute phase and, in the past few years, the emphasis was very much on not losing the possibility to use the most effective acute phase therapy that we have for am individual patient if there is a possibility of thrombolytic therapy.

[37] We have a standardised assessment, which includes a neurological assessment, ECG, laboratory testing and an almost immediate CT scan, usually within the first few hours after admission to hospital. Then, we have a central recommendation for the standard care plan for patients, nursing staff, the early mobilisation and the early rehabilitation teams. We have guidelines on secondary prevention, carotid surgery, and the future steps for rehabilitation.

[38] I think that we can say that we have standardised recommendations that apply to all patients in the acute phase, covering what should be done, what tests should be carried out, the CT scan and so on. We have a very strong recommendation, which is that it is crucial in stroke care for a patient be treated in a stroke unit. It is preferable to have direct admission to a stroke unit without starting with an observation unit and then making a secondary transfer to a stroke unit. That has been the very strongest recommendation of Swedish stroke units from the beginning.

[39] Rehabilitation and the long-term follow-up is much more individualised, and that is where we now see that we have difficulties measuring whether the patient has appropriate therapy for the long term. Acute phase management is well standardised. More than 99 per cent of patients, for instance, have an early CT scan. It is almost as though we could take that quality indicator away because it reaches the ceiling of 100 per cent. So, in brief, those are the standards of stroke care that we have in Sweden.

[40] **Darren Millar:** Thank you very much. We appreciate that overview. We will turn

now to the stroke guidelines, and I know that Lorraine has some questions.

[41] **Lorraine Barrett:** Good morning. Your stroke guidelines have recently been published, and you just talked about them. What do you think could we here in Wales learn from the development of those guidelines?

[42] **Professor Asplund:** We are in a fortunate position in that Bo was the head of the so-called 'facts group' that brought out the scientific facts and I was the chairman of the prioritisation group. So, perhaps we could start with you, Bo.

[43] **Professor Norrving:** I think that the key to our success with the national guidelines was the involvement of all the main persons involved in stroke care, giving different perspectives. It was not developed by a governmental body, and then presented and issued. During the whole process, all specialities involved had an input. The patient support organisations had the opportunity to review the documents during the process. At the same time, that is important to the implementation, because it gives a feeling that people involved in stroke care have been a part of the process. They know what is happening, they have all the information, and they help very much in spreading the key messages out to local facilities and units. We have also been very careful to involve all the different professionals and to have strong input from the stroke support organisations.

[44] **Lorraine Barrett:** I think that that is a very helpful message there for us. Thank you.

[45] **Darren Millar:** Did you want to add something, Kjell?

[46] **Professor Asplund:** Then comes the next phase, so to speak. Once all the facts are on board, a priority committee sets the priorities from one to 10, deciding what should get a high priority and what should get a lower priority. We also have a 'do not do' list of things that are proven to be worthless, too expensive to have a benefit, or too dangerous to practise in Swedish healthcare. So, we have a 'do not do' list and a research and development list.

[47] A panel of various professionals mostly involved in stroke care has been sitting down and evaluating the facts. Sometimes, we do not have scientific facts but there is a general consensus about things and, at other times, there is a general disconsensus and those things are not prioritised very highly.

[48] **Peter Black:** You referred to the priorities that were set. How did you identify those priorities?

[49] **Professor Asplund:** We started with pairs of clinical problems and interventions, such as carotid stenosis and neck muscle surgery, so carotid surgery. For each, we defined the needs, which may vary within a group of stroke patients, and evaluated the effects of the intervention, the scientific strengths behind those effects, and the cost-effectiveness. We weighed those together to reach a final level of priority.

[50] **Darren Millar:** One thing that can happen, unfortunately, is that countries have marvellous guidelines that say all the right things, but they are not always implemented.

9.40 a.m.

[51] How are you making sure that these guidelines are being adhered to and fully implemented across the country? I think that this is one of the main factors in your success, is it not, that the guidelines are standardised across the country and are obviously being policed in some way? Bo, perhaps you could comment on that.

[52] **Professor Norrving:** I think that there has been an important synergy between the guidelines and the availability of the Riks-Stroke register. It is a very clear message that we can send out from the guidelines. We can send out the priorities. The top priorities should be very clearly communicated. This is now being measured in Riks-Stroke so we can see whether this is being adhered to.

[53] There has been a major change also during the last few years. In the beginning, for quite a long period, the registry was mainly of interest to local professionals only, for those directly involved in the stroke care. Then more and more this has been very much of public interest and also very closely looked into by administrators. So, in most Swedish regions now the hospital administration and the county council administration look and ask for the data from the quality register and take very strong local action and have much dialogue with local care providers.

[54] So, this has been a major change in just the last few years. We have really squeezed those hospitals working in the stroke field on whether they adhere to the standards and whether they need to improve. In the county council in which I am working we now even have a mandate that if you do not reach a certain level, you are not allowed to work with stroke care overall. So, we had one year to improve and say that 'More than 85 per cent—I think it is that now—directly at the stroke unit; we should aim at the 10 per cent thrombolytic rate'. So, there are very strong incentives from the administrators now.

[55] **Professor Asplund:** It is fair to say that some of the quality registers have had good help from the mass media. It is not very encouraging to be at the bottom of this ranking list, and there have been some very powerful actions taken in response to mass media exposure.

[56] **Darren Millar:** So, is there a sort of 'name and shame' result from the league tables, effectively, that are being published?

[57] **Professor Asplund:** Yes, but we also provide cakes and flowers to those hospitals that are at the top.

[58] **Darren Millar:** Okay. Irene James is next.

[59] **Irene James:** Thank you, Chair, and good morning to you both. Can you explain how you were able to develop the Riks-Stroke register? What were the aims of that register at the time? Just to follow on from that, have the aims changed over time?

[60] **Professor Asplund:** Well, the aims have basically been the same. It has been very much focused on improving the quality of care for individual patients. What you have to watch out for all the time is that it does not become a very extensive research register. We have had a tendency to increase the number of variables and those of us that have a scientific background want more and more information, but that makes it difficult for all hospitals to participate. So, we have restricted that.

[61] The key is to get all hospitals on board, because the enthusiastic hospitals have good care from the start. Getting all hospitals on board, even those that are less enthusiastic about stroke care, is the key. Then you have to have a simple procedure. So, the primary aim is to ensure quality care in all hospitals and to make it equal across the country.

[62] **Ann Jones:** You stated, I think, that patients registering on your Riks-Stroke register is voluntary, but more than 82 per cent have registered. Then you went on to tell us those who do not register, such as elderly people in nursing homes, those who die an early death and those not admitted to a stroke unit. Why was the decision made to make the registration voluntary? Did you give any consideration to making that registration mandatory?

[63] **Professor Asplund:** I may have gone over this too fast. It is voluntary for the hospitals to join. For individual patients we provide written information, usually, that people are registered and that they have the possibility to say 'no'. Very few do so. Only six registers in Sweden are compulsory—for instance, the causes of death register, the birth register, and so on—but all the quality registers are voluntary. So, there is no law behind them.

[64] There have been some suggestions recently that they should be supported in law. We now have, I think, 84 quality registers in the country, covering various areas, but so far they are voluntary for the hospitals and for the patients.

[65] **Darren Millar:** Can you tell us just a little bit more about that? To what extent does the fact that patients such as elderly patients in nursing homes who have suffered a stroke, or those who have died very early on because of a very serious stroke, distort your figures about the success of your stroke treatment in terms of the statistics? Does it or does it not distort those figures? If those people are more likely to have poor outcomes, does that mean that your data are not complete?

[66] **Professor Asplund:** Yes, it is perfectly true that you get a picture that is a little more favourable than you would otherwise get. We check this with the compulsory registers for hospital admissions and diagnoses and causes of death, and, if we include those data, which we have done in validation studies, they get a bit worse, but it is only by a very few per cent, 1, 2 or 3 per cent.

[67] **Darren Millar:** Thanks for clarifying that. Helen Mary Jones is next.

[68] **Helen Mary Jones:** Good morning. You have identified for us how you have used the register so far to improve services. How do you intend to use the register in future to improve implementation and decision-making around stroke services in the Swedish health service?

[69] **Professor Asplund:** Do you want to take that, Bo?

[70] **Professor Norrving:** Yes. I think that, first, coming back to this issue on voluntary registration, in principle it is voluntary but there is such a high pressure to do it now from the different stakeholders that it is almost mandatory. It would be sensational if a hospital chose to withdraw from the national quality register. It would be a black mark overall.

[71] The data are closely monitored today by different stakeholders, and are regarded with very much interest from different points of view. An advantage is that we have these different points of view monitored in the Riks-Stroke register. You get the patient perspective, the hospital structures, the availability of stroke units, and the patients' opinions of the quality of care that they have received.

[72] **Helen Mary Jones:** I have a supplementary question. You identify in one of the slides that you showed us that there are big variations: there is one hospital where only 50 per cent of the patients were treated in a stroke unit and others where the proportion was lower. Is there anything common to those hospitals? Were they, for example, serving poorer socio-economic areas, or is it to do with policy and decision-making in the health service?

[73] **Professor Asplund:** The interesting thing is that the hospital that you see at the bottom of that graph is the one that is admitting most stroke patients in Sweden—more than 1,100 per year.

9.50 a.m.

[74] Having seen these figures, the decision makers have now decided to open up another stroke unit at that hospital, so this is one example of how exposure of a rather poor situation in this Stockholm hospital has changed the situation—the decision makers intervened to provide more resources.

[75] Otherwise, there is no pattern. There are both large and small hospitals at the bottom of the list, and hospitals from various parts of the country, so there is no genuine pattern.

[76] **Val Lloyd:** Good morning. I have a question about the delay from onset to hospital admission. Your presentation suggests that, since 1996, the delay from onset to hospital admission has reduced by nearly 40 per cent. Could you tell us, please, how this has been achieved? Could anything have been done to reduce that time more quickly in the 12 years?

[77] **Professor Norrving:** First of all, the data shown in slide 14 is quite uncertain because we lack data on, I think, a third of all patients at least. So, it gives a trend and an indication, but this data is not very precise.

[78] There has been a major boost after the introduction of thrombolysis with some publication campaigns, but I think that this will now be the next step, given that we need much more campaigns to the general public on the need to seek hospital care and to take action immediately after suffering a stroke. This is also one of the elements that we have analysed and made a recommendation on in the national guidelines—the hospitals should take the responsibility and lead on these public campaigns. Traditionally, these have very much come from patient organisations or from mass media. So, it is also for the stroke units and for the hospitals to take a lead. As regards the knowledge from scientific studies, there needs to be a boost and a new campaign about twice per year so that the population is well informed and to send the message that this is still highly relevant and very important.

[79] **Professor Asplund:** I think that one factor that can be effective here is the prioritisation of the ambulance services. Chest pains are always priority 1; stroke, sometimes in some counties, is priority 2, or even 3 in a historical perspective, but with the introduction of thrombolysis, I think that all counties now have, as far as I know, made strokes priority 1 also. So, we expect this to come down a bit.

[80] I have a slightly different view to Bo on the value of public campaigns. From my experience, in relation to chest pains and myocardial infarctions, they have an effect but it is rather temporary. I think that if you inform and educate the public, it must be a very long-lasting effort, not a temporary campaign.

[81] **Darren Millar:** Thank you very much for that. It is interesting to hear what you say about the ambulance priorities because we will be taking evidence from the ambulance service here. Irene, you have the next question.

[82] **Irene James:** Your map of thrombolysis rates shows variations. Can you explain why these variations exist and why there appears to be better rates generally in the north of Sweden?

[83] **Professor Asplund:** This is interesting, and I come from the north of Sweden. I think that there has been a view that the long distances to hospitals in rural areas would make it very difficult to perform thrombolysis, but it is evident that several of these counties with high thrombolysis rates are very sparsely populated areas, so it is possible to see this. One of the things is that there are extensive helicopter services in the northern part of Sweden, so that might contribute somewhat. Otherwise, I think that it is very much a matter of clinical opinion leaders and local spreading and dissemination of new methods. We see that clearly for all

methods. The introduction of new methods, and the discarding of old-fashioned methods, is very much dependent upon the attitude of the university hospital of that area.

[84] **Darren Millar:** You mentioned helicopter services as a factor. To what extent has telemedicine contributed to this higher rate of thrombolysis in the north and in some of the other counties of Sweden?

[85] **Professor Asplund:** To no extent, I would say. Telemedicine is extensively used in ear, nose and throat services, and in dermatology and some other specialities with non-acute illnesses, but, for acute cases, it is used very little. As you know, it has been used in Canada and Australia and so on, but we have very little experience of it in stroke services.

[86] **Helen Mary Jones:** You have been successful overall in increasing the rates of thrombolysis despite the variations. What do you think that we in Wales could learn from your experience in driving those rates up?

[87] **Professor Norrving:** I think that, for me, the key is to have strong opinion leaders at the stroke units. It is very important that the stroke units are well established because these are the key points of providing good stroke care. If you have a good stroke unit, then you have the possibility to act for the local community. The development has been regional, as you see on the map on slide 12. We have worked in the different county councils to develop the projects with the ambulance services to become effective. So, it has not been a national process; it has been a regional, local project. I think that this very much depends on the leadership of those at the stroke units and at the university hospitals to drive this effort strongly. In those regions without clearly identified leaders, this has been much slower. So, I think that this is very much a matter of leadership.

[88] **Professor Asplund:** What is very encouraging to see is that some of the county councils in the darker colour on the slide were at the bottom of the list just two or three years ago, but they have taken a decision to introduce the method and provide the infrastructure for thrombolysis. Then it just takes two or three years to reach the top.

[89] **Ann Jones:** Your slide shows that it has taken around five years for the percentage of women thrombolysed to come to the same percentage as that of men. Why was a lower percentage of women thrombolysed compared with the percentage of men? What are you doing to keep the ratio the same now?

[90] **Professor Asplund:** To answer your second question first, I think that the very presentation of the data on gender differences helped to reduce the rates. I do not think that it is a conscious discrimination. This follows the introduction of all new methods—they are first introduced to middle-aged men and later to women. That is a systematic error of all healthcare services in most western countries. So, your question is a very broad one, essentially. For thrombolysis, there are data from many other countries with much larger differences between the sexes, so we are reasonably comfortable with our data.

10.00 a.m.

[91] **Darren Millar:** Thank you. I am very conscious of the time—it is catching up with us—but there are a few more questions that we would like to put to you. We will go to Lorraine.

[92] **Lorraine Barrett:** Can you say something about the main issues in comparing Swedish outcomes with those of other countries? Have you done some work on that?

[93] **Professor Asplund:** Bo, you may know better.

[94] **Professor Norrving:** Yes, we were recently well funded for an EU project on exactly this issue—to compare the different quality registers in different parts of Europe. There are seven countries participating and we have just started this work. This has been ongoing for four to five months now. What has been done in the first phase is to see what items are registered, which indicators are used in the different registers, and then the next phase is to see in what way the registers are comparable.

[95] What we have seen so far is that there are quite large differences between what is included in the different registers. Some are quite limited; some are very extensive. I think that this will be a useful process to see which are the key indicators that we can compare and have similar definitions across different countries. Today, I think that this has to be viewed very carefully, because there are differences in definitions. The aim, of course, is to have the possibility of comparing quality of care on stroke, not only within the country but between countries as well. I think that it will come down to less than 10 key quality indicators that can be used for such purposes.

[96] **Darren Millar:** Thank you. I have one final question, because the clock has beaten us. If there are a number of priorities that you think Wales needs to consider in improving stroke services in our country, what advice would you give to us? Perhaps you could both answer this question in turn.

[97] **Professor Asplund:** I think that we can answer in chorus: stroke units.

[98] **Professor Norrving:** Absolutely. When I am speaking about the Helsingborg declaration and stroke strategies for Europe, I have a slide showing the strongest recommendation. There is no doubt that you need to have stroke units as ambassador sites for good stroke care. If you have an effective stroke unit, it can work with pre-hospital stroke care and also with secondary prevention and the long-term follow-up. It is essential to have the stroke units in place. With good leaders, they have spreading rings around what is happening in the stroke units. It is not only that the patients come in and go out; stroke units have a much broader importance than that.

[99] **Professor Asplund:** If you look at the successes of cardiology in recent years and the scientific development there, coronary care units have been absolutely crucial for that development. There is an example there.

[100] **Darren Millar:** On that note, with that very clear message, I thank both of you, gentlemen, for joining us today. We have very much appreciated your evidence. It is certainly going to add significantly to our inquiry and to the report that we will be drawing up as a result of it. We look forward to a continuing good relationship with you over there in Sweden. Thank you, Kjell and Bo.

10.04 a.m.

Ymchwiliad i Wasanaethau Strôc: Tystiolaeth gan Goleg y Therapyddion Galwedigaethol
Inquiry into Stroke Services: Evidence from the College of Occupational Therapists

[101] **Darren Millar:** I am very pleased to be able to welcome back to our committee a regular attendee, Ruth Crowder, the Welsh policy officer of the College of Occupational Therapists. I also welcome Janet Ivey and Deborah Pawsey, who are both occupational therapists.

[102] We have received some papers from you, for which we are very grateful. They have been circulated to committee members. If you do not mind, because of the time, we will move straight into questions, if that is okay, Ruth.

[103] You mentioned in the paper the importance of occupational therapy being delivered to a patient within the first 48 hours of the onset of stroke. That is very soon after somebody has suffered a stroke. How important is that? Can you give us a bit more information as to why that 48-hour window is crucial and to what extent is that being achieved in Wales?

[104] **Ms Crowder:** Absolutely. Thank you for the opportunity to come to talk to you. We would say that you need access to all therapies, but occupational therapy in particular, across the whole pathway. So, it is very important right from the first 48 hours, right the way through to long-term community support. To specifically answer your question, I will pass on to Janet, if I may.

[105] **Ms Ivey:** Good morning, everyone. We estimate that approximately 20 per cent of patients who are admitted to stroke units actually go home within the first 48 hours. The Royal College of Physicians guidelines indicate that every patient should be deemed to have some degree of cognitive problems in the early stages, and occupational therapists play a key role in assessing cognition and perceptual function in order for people to go home. So, at present, if people are not assessed by occupational therapists they are frequently sent home without having any cognitive or perceptual deficits assessed. This can cause extreme difficulties in the home with things like driving, childcare and return to work. Problems often arise with things that are more hidden, such as reasoning, judgment, being able to make decisions on the future, and the amount of time that it takes to undertake activities. So, occupational therapists are quite essential at that early stage to be able to pick up these more hidden deficits that are generally not being seen by other professionals.

[106] **Ann Jones:** Your paper says that, after the initial rehabilitation stage, stroke patients should be offered a six-monthly review and further rehabilitation if possible or if appropriate. You have also gone on to mention leisure activities and the inconsistent funding of such services across Wales. Would you give us some examples of where such services exist, and tell us how they benefit people?

[107] **Ms Ivey:** Some stroke patients continue to improve way after the six-month period; other people may see a slight deterioration after that period. So, it is absolutely essential that people have access back to stroke services further down the line for rehabilitation. Those services are quite scarce in Wales. Some areas have systems where they can refer people back into stroke services for specialist access, but that might only be one out-patient appointment per week. If services are based in the community, people will be more able to access community services such as leisure activities and vocational rehabilitation.

[108] **Ms Crowder:** One issue that arises once you have been at home for a while is that, as you move back into normal life, more complex difficulties can start to arise. Once people have stopped receiving rehabilitation for a while they can actually slip down—their skill level can deteriorate. So, it is about making sure that we have access to ongoing services that keep their skills level up, keep them able, but that also allow them to have a meaningful life. It is obviously not acceptable for any of us to want to go home to just sit in a chair. We need to be able to feel that we are still contributing, that we still have an important role, and that there is some purpose in getting up in the morning.

[109] A third reason is also around prevention and the need for people to keep active and healthy lifestyles in the long term, so that we prevent second strokes, further deterioration, long-term spasticity and so on.

[110] **Ms Pawsey:** Also, just to pick up on rehabilitation, there is currently only one specialist community therapy team in Wales. We have a project for early supported discharge, but it is a pilot scheme that is very time limited—it is only able to go in for the first six weeks post discharge. As Ruth and Janet have already alluded to, a lot of these more complex, perhaps invisible, problems from the acute setting may not yet have been identified. It is often only once the patient has been transferred back home that more of the complex, long-term problems become more apparent.

[111] **Ann Jones:** Would you like to tell us where that one complete team is located? I think that we ought to know.

[112] **Darren Millar:** We did take some evidence from Wrexham, did we not? I assume that that is the team that you are referring to.

[113] **Ms Pawsey:** The early supported discharge project is actually in Swansea, but it is a pilot scheme and it is only due to run until April.

[114] **Darren Millar:** There is a scheme running in Wrexham that we have taken evidence from as well which sounds very similar to the one being delivered in Swansea.

[115] **Ms Ivey:** I think that what is coming out from most of the pilot schemes that are being run is that the outcomes are very good. So, they seem to be the way for us to move.

10.10 a.m.

[116] **Darren Millar:** Yes. Okay, thanks. Peter Black.

[117] **Peter Black:** Within the stroke pathway, which areas do you feel are better serviced by occupational therapy than others? Where is the most pressing need for investment?

[118] **Ms Crowder:** Last year or the year before we received the £2.5 million, which all went into acute units, and we would want to see the next stage of investment coming through to develop rehabilitation and community services and early supported discharge.

[119] **Ms Ivey:** It is important that every acute unit has a stroke specialist occupational therapist for the reasons that we have already discussed. Rehabilitation units need to be able to see people, according to the RCP guidelines, for 45 minutes every day, so we need sufficient occupational therapy staff and support staff, which are invaluable in rehabilitation, to be able to deliver that amount of care. The evidence points to the fact that the more therapy that someone receives, the better the long-term outcomes.

[120] As I say, there are very scarce resources in the community now. We have community reablement teams and we would be keen to see stroke specialists working within those community reablement teams to undertake the complex caseloads to facilitate earlier discharges from acute and rehabilitation services, but also then to act as mentors and to help the more generalist, reablement OTs who have stroke patients as part of their caseload. We see that as a very cost-effective way of moving forward with occupational therapy services. In conjunction with these teams, we could work with our local authority partners, which would enable us to have a more flexible service and a seven-day-a-week service as well.

[121] **Lorraine Barrett:** What is the relationship between your all-Wales occupational therapy clinical network and the Wales Stroke Alliance? Do you think that it would be helpful if the alliance was a multi-disciplinary group rather than its being clinically led?

[122] **Ms Ivey:** We have a strong clinical network of occupational therapists at the moment, which has a stroke specialists section for neurological practitioners. That is affiliated to our College of Occupational Therapists and it has been running for a number of years in Wales. We have excellent networks via e-mail and video-conferencing, and we run study days and electronic news journals as well.

[123] As part of that, the stroke members feed directly into the Welsh stroke alliance, which is the clinical reference group for the stroke improvement programme. It is essential that the Wales Stroke Alliance is multidisciplinary, which includes voluntary organisations as well as the professionals, because then you get a full idea of what the issues are for stroke. I foresee that that could have a very strong role in the future to help to advise the Welsh Assembly Government on clinical issues to do with stroke and develop policies to help our population.

[124] **Darren Millar:** You have already given us some information on the importance of specialist OTs, particularly in community teams, and on stroke units, and we appreciate that. We will move on to Irene now.

[125] **Irene James:** When was the profession-specific audit of occupational therapists for Wales carried out and by whom? It appears that the results have not been published.

[126] **Ms Ivey:** To our knowledge, the results of the profession-specific audits for all the allied health professionals are still with the Welsh Assembly Government.

[127] **Darren Millar:** Has an explanation been offered as to why the results have not been published?

[128] **Ms Ivey:** No, we are still waiting for the results. There should also be some valuable information from the work on intelligent targets that is being undertaken by the stroke improvement programme. When audits of that are undertaken there should also be some useful information from that tool as well.

[129] **Irene James:** When was the audit?

[130] **Ms Ivey:** Last November.

[131] **Irene James:** So it is almost a year, then.

[132] **Ms Ivey:** Yes.

[133] **Peter Black:** A witness in an earlier oral evidence session suggested that an alternative model of statutory care could be to treat stroke patients in neurological units. What is your view of that in relation to creating neurological specialist occupational therapists who are also stroke specialists?

[134] **Ms Ivey:** Some of the core skills are certainly very similar. There can be some differences with treating some of our head injury patients who, perhaps, need quieter areas because they have specific needs that are different to some of the patients in our stroke units. There are some core skills that are similar, but most of the evidence to date points to having geographical specialist stroke units rather than large neurological units.

[135] **Val Lloyd:** My questions are on training, research and development. First, you mention in your paper—and thank you for that—the training, shared learning and support roles that your clinical network has achieved. How would you wish to see that network developing?

[136] **Ms Crowder:** I will talk generally about research first and Janet can then talk about the development of the network. We are not aware of any research-active occupational therapists. We are also not aware of any occupational therapy post in research as identified in job descriptions, so we need to see some improvements, and development and investment in relation to participating in research and development.

[137] I will pass on to Janet to talk about the network.

[138] **Ms Ivey:** On the clinical network, we are quite fortunate in occupational therapy that we are, as I said, part of the College of Occupational Therapists. Our Welsh clinical network is also allied to our UK clinical network and we have strong links with the College of Occupational Therapists in London. From the development point of view we have seen a huge increase in numbers since the focus on stroke services because it is a specialist section. People have to pay out of their own personal funds to join that section and, as I say, people have been doing that since the focus on stroke services and it has continued to improve.

[139] Some of the infrastructure is still very much reliant on the goodwill of the chairs, the secretaries and the treasurers. They are giving up their own time to keep that clinical network alive and viable.

[140] **Val Lloyd:** Thank you for a very comprehensive answer, Janet. Going back, Ruth, to the research and development question, what do you feel should be done to increase the number of posts and access to funding in order to progress research and development? How appropriate is the funding from the Wales Office of Research and Development to your profession?

[141] **Ms Crowder:** As we see a rationalisation of stroke units and as some pulling together of beds into very clear units, we will get a much better critical mass of staff and patients, which is always a horrible way to refer to them, but as subjects to start drawing in research funding to start pulling in Welsh units as part of UK and wider large-scale research studies. We need to be part of multitrial studies. We need to see that happening and that is why we need to see more investment in developing the stroke units and the stroke services.

[142] We would then need to see investment in specific stroke posts. Whichever route that takes—whether it comes through university posts or as part of consultant posts and leader posts within the therapy professions—we need to have that investment in leaders and developments.

[143] In relation to WORD, I am not a research expert myself, but my understanding is that when you make a bid for WORD money they are often looking for large and sometimes multiprofessional projects. Where you have very small capacity—which is what we have in occupational therapy at the moment—it is often very difficult to attract some of that money from WORD to look at therapy outcomes. So, we are very pleased that we are now starting to focus more on social care and outcomes in terms of the realities of patients' lives, but we need to see investment so that we have the capacity to bid for and win those projects and then deliver them. When you are small, looking at very small pieces of research, it does not attract that kind of income.

[144] **Darren Millar:** To clarify, in response to Val's first question you indicated that there is not a single OT research post on stroke. Is that across the whole of the UK or just in Wales?

[145] **Ms Ivey:** In Wales.

[146] **Darren Millar:** Are there research posts elsewhere in the UK?

[147] **Ms Ivey:** In the UK, yes. Consultant posts often have a research remit attached to them. So, we have consultant OT posts for stroke in England and in Scotland.

[148] **Darren Millar:** England and Scotland. How about Northern Ireland?

[149] **Ms Ivey:** I am not sure about Northern Ireland, I am sorry.

[150] **Darren Millar:** Okay. Thank you for that. Helen Mary Jones.

[151] **Helen Mary Jones:** You have already mentioned that early supported discharge is available in certain areas of Wales. Can you describe how that has been achieved and say a bit more about the role that occupational therapists play in those schemes?

10.20 a.m.

[152] **Ms Pawsey:** With reference to the pilot scheme locally, the occupational therapist is funded on a part-time basis. The therapy team consists of an OT and a physiotherapist, but there was not enough funding to have a speech therapist as well, so we had to rule out any potential discharges from hospital that involved communication difficulties, and that has caused some access problems.

[153] For any patients coming in through the acute route, it is identified within the first 48 hours whether they could go home, depending on whether they have strong social support networks. If we are considering discharging someone, we cannot necessarily get a package of care in place to support them, so we look for people who have good family support to pick up in the shorter term. The therapists have in-reach to the hospital, so they come onto the ward to assess the patients, to identify their suitability and rehabilitation goals, and the rehab programme is then continued at home where it is much more individualised. In the acute setting, we are screening for the perceptual, visual and cognitive domain and maximising a patient's physical ability, but once they are transitioned into the community, that programme is tailored to the individual, depending on their occupation and their particular interests, for example. It tries to reintegrate them into their community by looking at vocational skills for many of the people involved.

[154] **Helen Mary Jones:** Will the fact that you could not include speech and language therapy in that skew the results? It must affect who you can take in.

[155] **Ms Pawsey:** For those patients, we have an existing intermediate care team, which is a generic team and, previously, it had only a very small neurological caseload. Most patients require orthopaedic treatment by nature. It goes back to the specialist link within that team, really, because it takes a more general and holistic overview of someone's level of independence, rather than looking at things at a specific neurological level. So, it might look at someone's level of independence at washing and dressing, for example. If someone had a weakness in a limb so that it was not fully operational, the generalist intermediate care team could look at taking a compensatory approach to see whether they could engage and function with the remaining limb, if it is a long-term disability. A neurological team, such as the early supported discharge team, would look at incorporating the recovery as it happens and maximising the potential.

[156] **Helen Mary Jones:** That is really useful, thank you. Moving on, you mentioned in your paper the particular difficulties that younger people with stroke have to deal with. You mentioned that there are about 10,000 cases per year in England among those aged under 55, 1,000 of whom are aged under 30. Are there any figures for Wales that tell us the number of young people we are dealing with? How should the Welsh Government respond to what is likely to be quite a small number probably spread out across the country?

[157] **Ms Crowder:** I am not aware of specific numbers, but I am aware that the Stroke Association and our practitioners recognise the increasing numbers of younger people. We are starting from such a low base of investment in occupational therapy that it would be very easy to come here and say, 'You must have separate stroke units for younger people and they must all be fully staffed'. The reality is that that will be very difficult to achieve.

[158] We were talking earlier about how we might manage that situation for them. First, there has to be recognition that stroke is not necessarily an older person's condition, and people who are younger have very different needs. One solution that we talked about was getting people home as quickly as possible so that they are not left sitting in units with a lot of older people, who may have other diagnoses and other problems, and who may not have the stamina for rehabilitation. That has a huge psychological effect on younger people.

[159] In an ideal world, we would have separate units that were very focused on the patients and, potentially, a neurological unit would be an alternative, but, given where we are starting from, we need to think about how we can get people home quickly with expert support in their own homes, and we can develop from that.

[160] **Ms Ivey:** It is very important that young people go home as quickly as possible. For younger people, there are financial consequences that many older people do not have quite as many concerns about. There are all sorts of issues to consider, such as parenting and childcare issues. Our younger people need to maintain those relationships and those roles. The quicker people go home, the quicker we can start to address return-to-work issues from the community base rather than from a hospital base. That tends to be a lot more discharge focused.

[161] **Darren Millar:** In closing, I want to ask a little more about the model in Swansea, which is seeing good outcomes for patients. The committee has also taken evidence about the good outcomes being achieved in Wrexham with a similar although not the same arrangement. How is that funded and co-ordinated? Have extra resources been necessary to develop that team or was it funded from existing resources?

[162] **Ms Pawsey:** It was grant funded, which is why it was only a short-term pilot scheme. We are now looking at the long-term investment and hoping that that will be adopted in the local area. It will be adopted within the existing intermediate care team, so it will exist as a speciality within the generic community resources and there will still be that expertise that can be fed throughout the team.

[163] **Darren Millar:** Okay, but are extra resources needed to deliver those?

[164] **Ms Pawsey:** Yes.

[165] **Darren Millar:** That would be across Wales.

[166] **Ms Pawsey:** That was staffed by existing specialist staff who have been backfilled from their current posts.

[167] **Darren Millar:** Okay, thank you for that. I think that that brings us to the end of our questions. We are very grateful for the evidence that you have contributed. We will certainly keep in touch with you on future inquiries and the outcome of this one. Thank you very much indeed.

[168] **Ms Crowder:** Thank you very much.

[169] **Ms Pawsey:** Thank you.

[170] **Ms Ivey:** Thank you.

10.27 a.m.

Ymchwiliad i Wasanaethau Strôc: Tystiolaeth gan Ymddiriedolaeth GIG Gwasanaethau Ambiwlans Cymru
Inquiry into Stroke Services: Evidence from the Welsh Ambulance Services NHS Trust

[171] **Darren Millar:** Continuing our inquiry into stroke services, we will now take evidence from the Welsh Ambulance Services NHS Trust. I am pleased to welcome Andrew Jenkins, a consultant paramedic, to our table. We have received some evidence papers that have been circulated to Members, Andrew, so thank you very much for those. Would you like to make any opening remarks before we go into questions, or are you content for us to move straight to our questions on the paper?

[172] **Mr Jenkins:** Dim problem. **Mr Jenkins:** No problem.

[173] Yes, I am happy to go straight to the questions.

[174] **Darren Millar:** Okay. What difficulties does the ambulance call centre face when it receives a telephone call that may mean that a patient has had a stroke?

[175] **Mr Jenkins:** That is a good starting point, really: the front end. The predominant issue is that it is very difficult for the emergency call takers to pattern-match a group of symptoms into a working clinical impression to make sure that the adequate response is apportioned to the presenting complaint. There is a bit of work going on with that, which I can share with you, if it is appropriate. That is a biggie at the moment: sign-posting the right response to the right presenting complaint within the right timeframe to get to the end point disposition.

[176] **Darren Millar:** So, is it a sort of telephone triage, in effect.

[177] **Mr Jenkins:** Pretty much, yes. In the paper, I refer to the fact that what has been agreed now is that, on receipt of a 999 call presenting some high-level signs and symptoms aligned to a transient ischaemic attack or a stroke, it is afforded a category B response. The benefit of that is that you get a fully kitted ambulance with a paramedic on board and so the next point of the phase kicks in, which is the transport system. In the Joint Royal Colleges Ambulance Liaison Committee guidelines, the college of paramedics guidelines and the National Institute for Health and Clinical Excellence guidelines, they are very much for us to give treatment on the go, en route.

[178] **Darren Millar:** You mentioned the categorisation of stroke there from when the call comes in, and such a call is given category B status at the moment. We have just taken evidence from Sweden, and we were told that one of the drivers for the improvements in stroke care there is the fact that stroke is treated as a very top priority call. Why is that not the case here in Wales?

10.30 a.m.

[179] **Mr Jenkins:** It is the case. You have a category A eight-minute response and that will be either an ambulance or a rapid response single-operator paramedic within the eight-

minute timeframe. Or you have the category B then, with urban, rural and remote at 14, 18 and 21 respectively, where an ambulance is sent as a result of a 999 call. The discussion with the working group was around the fact that if we send it as a category A and you have a single operator response, you are still delaying the transport. What you need is a category A land ambulance to push the transport, and that is what we are going to work to, but as an interim measure we have a category B, with some very pertinent determinants and suffixes. It is almost like having a diagnostic tool online: if you have these symptoms or signs, then that is a cerebrovascular accident, and that is your response.

[180] **Darren Millar:** So, are you moving to a higher prioritisation, effectively, for stroke patients?

[181] **Mr Jenkins:** We have to do so. It has gone, basically, from a category B to a category B with some nine or so determinants as well, which I have here.

[182] **Darren Millar:** B plus?

[183] **Mr Jenkins:** Yes, it is like school, is it not?

[184] **Darren Millar:** You mention the determinants and the advanced medical priority despatch system. It seems quite complicated. Does it need to be as complicated as it is in order to determine whether somebody has had a stroke or not?

[185] **Mr Jenkins:** The challenge is for non-clinicians to make judgments over the phone. To that end, it is very didactic. There is very little wriggle room to digress into a clinical opinion. So, that is why it is there, and that is why we have put some extra determinants now on our code 28s, which is a stroke code, to try to help them make that decision very quickly.

[186] **Darren Millar:** Okay, thank you for that. Ann Jones, you can go ahead and ask your question.

[187] **Ann Jones:** Can you talk to me a little bit about this non-stand-down call and any problems you see arising from that? What is meant by a non-stand-down call? Why is there talk that all 999 calls for stroke patients will be seen as a non-stand-down call?

[188] **Mr Jenkins:** A non-stand-down call means that we will always send a response.

[189] **Ann Jones:** All right, so you get a response. What response would you get with a non-stand-down call?

[190] **Mr Jenkins:** That is what we are working out. We have a category B response at the moment, for remote, rural and urban areas, and the push is, with the JRCALC and with the college of paramedics, that we need to treat it as a 999 call. That is what we are doing at the moment under a category B response.

[191] **Ann Jones:** So, what response would you get on a non-stand-down call?

[192] **Mr Jenkins:** A 999 emergency ambulance.

[193] **Ann Jones:** So, that is not a category A ambulance, then. It is not a rapid response vehicle, is it?

[194] **Mr Jenkins:** We hold the rapid response vehicles for category A calls, with the eight-minute target in built-up areas. So, you have a paramedic on a single-operator vehicle to get to the 999 call very quickly and almost offer some sort of triage to see what the transport

mechanism should be. What we do not want to do is send a single operator to a stroke presentation, because that is just delaying getting the ambulance there. If it is a stroke within the medical priority despatch system, then the patient should get an ambulance automatically.

[195] **Ann Jones:** Would it not be easier to alter your triage system so that a suspected stroke is responded to as category A, and if it is confirmed that it is a stroke, then there would be a fully equipped ambulance? Is that not within the capabilities of your software?

[196] **Mr Jenkins:** I would not disagree with that. That is what we need to be working towards and what we are working towards. There is an MPDS system now that is called version 12. It is an American system—that is a licensing issue. We have our IT staff at the moment working towards implementing version 12. That diagnostic stroke tool will get that category A response as well, but getting the licensing and the IT capability is an issue. I think that we were hoping to go live in January 2010, but, again, I think that there will be some negotiation there. However, I certainly would not disagree with that one bit.

[197] **Ann Jones:** Explain to me the difference between category A, which is eight minutes, and category B, urban or semi-rural. If you are living in a semi-rural are and you have a life-threatening situation that needs a category A response, what happens?

[198] **Mr Jenkins:** You get the nearest available resource.

[199] **Ann Jones:** How do you determine what is a semi-rural area and how do you determine what is an urban and semi-urban area?

[200] **Mr Jenkins:** I am not quite sure. My remit is clinical and I am not quite sure how we would—

[201] **Ann Jones:** Does it not make your life difficult as a clinician, then, as a paramedic, if a dispatcher does not have the right software or the right information in the software?

[202] **Mr Jenkins:** Absolutely. The 1,000 Lives campaign hinted three weeks ago that we are going away from that. We are going into patient outcomes, patient measurements, and that is the battle that I have. I need to measure patient outcomes as the consultant lead for paramedicine, not the timeframe. That is the battle that I have. That is why we welcome the extra suffixes, version 12, and also the clinical desk that we have introduced into control, with NHS Direct Wales and nurse triage, not only to downgrade responses but upgrade responses. I welcome that, because that helps me as a clinician.

[203] **Ann Jones:** Okay. Why do we use the term ‘non-stand-down’? That to me means that you are not going to send a response at all.

[204] **Mr Jenkins:** Yes, it threw me a little bit. Sorry, I am not sure.

[205] **Ann Jones:** Can we not change it, then, because ‘non-stand-down’ definitely suggests to me that you are not sending anybody? [*Laughter.*]

[206] Well, it does. Sorry, I have a background in emergency service call handling, and if we had seen ‘non-stand-down’ we just would not have sent anything. So, I think that the wording there is wrong.

[207] **Darren Millar:** Okay, I think that you have made your point. Irene is next.

[208] **Irene James:** In paragraph 2.3 of your paper, you mention FAST, the face, arm and speech test used by ambulance clinicians. Can you tell us about trust ambulance clinicians and

how they work? Where are they based and, basically, where are they called out?

[209] **Mr Jenkins:** Certainly. When I talk about ambulance clinicians, I mean the paramedics, the emergency medical technicians. How they work and what they do is my responsibility. We have this FAST test, the face, arm and speech test, as part of a very watered down neurological assessment. It is very simplistic. It highlights the red flags very quickly, and is easy to use. The downside is—and I have made a note of it—there is nowhere to put it in our patient clinical record, so we have to put it in the narrative. An issue that I was hoping to come on to later is the electronic patient clinical record.

[210] So, basically, we are using a FAST test to identify the red flags and, again, the key to that is the clinical dialogue. Once the ambulance clinician has identified a FAST positive, then that clinical dialogue has to happen with the hospital. It is has very much gone full circle, if you like, back to when paramedics were first introduced. We were given so many skill sets that it was almost incumbent upon us to use them, even if prophylactically. The culture and mentality is now changing. It is very much, if I can be so bold, 'airway, breathing, diesel'. It is about getting people on board and then, '12-lead ECG, capnography, SpO2, oxygen therapy when indicated, IV access if indicated', on the go in order to meet the time-to-treat target. So, that is where the FAST test works for us.

[211] I am not sure whether I have answered all your questions.

[212] **Irene James:** You did move on to what was going to be my next question, which is why the receiving trusts did not have the patient clinical record. You have touched on that. Do we know why it was not included previously, or why it has not already been dealt with? We know it was not included previously, because it is not done; why has it not been done?

[213] **Mr Jenkins:** To be honest, I think that it is only because the forms were designed and the FAST test came in afterwards; we were using the Glasgow coma score.

[214] **Ann Jones:** You can redesign the form, surely.

[215] **Mr Jenkins:** Absolutely, but what I would like to do, and, again, we are looking at this, is to put in a tick box in for a FAST positive/negative in the interim while we go to electronic PCRs, which is probably two years or so away. The key is, on the back of your question, making sure that we capture the compliance data with the FAST. That is, it is all very well saying that our paramedics and our clinicians do the FAST test; we need compliance data to make sure that they do the FAST test, do the 12-lead and the glucose testing, and some comparative with our hospital trusts as well, which is why, again, I was hoping to allude to the importance of partnership working.

10.40 a.m.

[216] **Val Lloyd:** I am sorry to labour the point but I, too, have a question on FAST. I think that it is probably the last one. In your last paragraph you seem to suggest that there may be some difficulties getting all paramedics in the trust to use and record FAST when assessing the patient. That is the implication I take from it. Could you tell us why this is and how effective is the one session in the continuous professional development programme in increasing knowledge and use of FAST among professionals?

[217] **Mr Jenkins:** Again, as the paramedic lead for the trust, the education part is vital to me, and rolling this out has not been without its challenges. We have a culture of using a Glasgow coma score testing methodology, among other things, and dominant cues, and to introduce something else into the gambit has been yet another hoop. So, I have tried to use FAST generically because it is what it is: it is simple and didactic, and it highlights an index

of suspicion to say, ‘There is a potential here of a thrombolytic event, therefore, back of the ambulance, interventions en route, early clinical dialogue, and in’.

[218] So, the education has been a challenge and I would like to think, on the back end of last year’s CPD, that all our crews are using FAST, because I think that, to an extent, the penny has dropped in that it is easy to use. Also, it influences the Glasgow coma score and other treatment algorithms—cardiac, diabetes and so on.

[219] **David Lloyd:** You state that the Royal Glamorgan Hospital is the first hospital to formally agree a stroke fast-track protocol with the Welsh ambulance service. How is the work of the clinical support officer progressing in implementing a stroke fast-track protocol in Aneurin Bevan and Cardiff and Vale local health boards and what barriers to implementation have been identified and could delay progress?

[220] **Mr Jenkins:** That is a good point, because one of the biggest challenges for us—I think that intelligent targets may or may not have been mentioned—was ensuring the inclusion of the Welsh ambulance service trust in the pathway and the care bundle, so that we are not working in silos. So, I have to say that that has been positive to a degree.

[221] The barriers are more in-hospital than out-of-hospital at this stage. We have to remain focused, because it is very simplistic for us, in that it means early recognition, early communication and early transport. So, I think that the barriers are around ensuring that the pre-admission and post-admission stages become seamless, and there is still some negotiation in-hospital about that. I would not like to allude to what they are because I am not sure.

[222] **Peter Black:** You mentioned that the restructuring of NHS Wales secondary care services has caused progress on the stroke fast-track protocol in the central and west region to somewhat stall. What needs to be done to kick-start the process in that region?

[223] **Mr Jenkins:** It is about dialogue again and making sure that there is an option there, an opportunity to close the loop. I will start at the front end because this is very pertinent: a 999 call is made, the emergency medical dispatcher will identify a code 28, or stroke, and a response is sent. The challenge involves the paramedic identifying, using the FAST test, and then providing interventions en route. It is about having that negotiation to close that loop, otherwise we are not taking patients to definitive care and it is almost another bolt-on before they get to definitive care and the much needed CT scan. So, it is about having that discussion with colleagues, to come back to a phrase that I think Paul Williams used, to make the pre-admission and post-admission stages seamless.

[224] **Ann Jones:** What has been done in north Wales to introduce a fast-track protocol?

[225] **Mr Jenkins:** Again, this is work in progress. It is probably worth mentioning that we have an air ambulance facility with deployment potential, and we need to make sure that there is evidence around telemetry, telemedicine and improvement of outcomes—telemetry and outcome needs to be married up, so we need to bring in the air ambulance there—but the negotiations are ongoing with the clinical support officers in the hospitals. Again, north Wales seems to be not without its challenges, not only for stroke but for cardiac services and PCI, over the bridge.

[226] **Darren Millar:** We have heard this morning about the importance of the helicopter ambulance service in Sweden in the sparsely populated areas. I think that it is important that we recognise the contribution that this service can make to providing a rapid response when someone has suffered a stroke. To what extent is the availability of an air ambulance service important in sparsely populated rural areas?

[227] **Mr Jenkins:** The evidence would suggest that it is extremely important because of the speed. Coming back to Mr Black's question also, it is about the time to treat and the availability of that service. Other than in nine-to-five cases, it is challenging for the paramedics to close the loop when they have a presenting complaint at 3 a.m. on a Friday morning of stroke pathology or cardiac pathology. So, again, it is about the availability of that resource.

[228] I have been tasked with reviewing the deployment of the air ambulance and the skill set of air ambulance staff, and I think that the timings and operations will be down to our regional directors. Certainly, I would want to use the air ambulance. If the running time by land ambulance is exceeding the time to treat, then we need to look at the air ambulance, and that is part of my remit.

[229] **Darren Millar:** So, will the call management system be able to identify when an air ambulance response is appropriate and desirable through the triage-type system?

[230] **Mr Jenkins:** Yes. The flip side of that, unfortunately, is the availability and time of availability of the ambulance. We need to make sure that we get that right. At the moment it is 7 a.m. until 7 p.m. There are implications as regards flying hours, so we need to be very clear when that is available and make alternative arrangements, but it is certainly in the gambit for discussion.

[231] **Darren Millar:** Okay, thank you for that. Lorraine, you are next.

[232] **Lorraine Barrett:** I was just thinking that five years seems a long time to wait for the fast-track systems to be in place across south Wales. What do you think could be done to speed up the process?

[233] **Mr Jenkins:** From pre-hospital?

[234] **Lorraine Barrett:** Yes.

[235] **Mr Jenkins:** I think that partnership working is vital, and I apologise for alluding to that quite often. However, it is important because, otherwise, our guys and girls will be vulnerable in the pre-hospital environment if they cannot close that loop once they have identified the possibility of a stroke.

[236] Also, I should mention electronic paperwork. We have a patient clinical record at the moment with a very small narrative—there is a tick box on pulse, respiratory rate and so on, and you put your figures in, and there is a small narrative box. That is the key box as regards an opportunity for you to expand on your clinical impression. If that was electronic and dynamic on scene and was telemetrised across the hospital, with the cardiac services and door-to-balloon time considerations, it would speed up the process, as evidence suggests.

[237] So, I think that it is two-fold: education for our guys; and the electronic PCR. Dialogue must also take place between clinicians on scene. We have to keep pushing this.

[238] **Irene James:** Are there any specific problems that the ambulance service encounters in getting suspected stroke patients across the border, say, to Shrewsbury or Hereford? What happens with the handling once they arrive at hospitals there?

[239] **Mr Jenkins:** Yes, there are problems. This is seen in north Wales when patients are taken to Chester or Liverpool. This is where the diagnostic tool is vital, because there is almost a negotiation before transfer: 'Does the patient have, or are you sure the patient has, this condition, before you bring him or her all the way over here?'. Electronic PCR and a

good clinical fast-tracking process would almost negate that discussion by taking out the element of doubt. That seems to be what is there at the moment, and certainly in north Wales.

[240] **Helen Mary Jones:** Your paper sets out the wide variation between Welsh hospitals and the arrangements for admitting, diagnosing and treating patients with suspected stroke.

10.50 a.m.

[241] Can you say a bit more about the differences that ambulance service personnel have noticed between Welsh hospitals? Which ones have the better arrangements? I do not suppose that any of it is ideal yet, but which hospitals have the better arrangements? What sort of recommendations do you think that we should be making around that admission and diagnosis pathway?

[242] **Mr Jenkins:** I think that it has to be national. It is a good point, because otherwise the ambulance service is going to be kept vulnerable, whereby we are going to have maybe six or seven different protocols to which paramedics will be working. For me, that is a pre-hospital governance issue. For example, if I have a paramedic in Cardiff taking a patient to Morriston Hospital and he is used to going to the Royal Glamorgan Hospital, where the processes and the diagnostics are different, that is potentially a clinical concern for the ambulance trust. Therefore, it would be a big help to us if a national working group could keep intelligence targets and care bundles as generic as possible, to limit the risk factor for pre-hospital decisions and also to make sure that they go to the right place.

[243] **Darren Millar:** Thank you. That brings us towards the end of our questions. The thrust of what you are saying is that there needs to be consistency about how stroke patients are admitted into hospitals across Wales.

[244] **Mr Jenkins:** Absolutely. From our perspective, because—

[245] **Darren Millar:** I am astonished that it is not consistent at the moment, to be honest.

[246] **Mr Jenkins:** Not to do disservice to hospitals, I think that the fast-tracking is very embryonic. We need to do some hard yards now to catch up, and that consistency would be most helpful. Early indications are that those discussions are taking place, again with the intelligence targets and Carl James, with the clinical support officers and the working fora and colleagues who came before me. That does seem to be happening, but it is now coming to a point where it needs to go into practice on a wider remit, so that our paramedics do not just get offered that facility on a 9 a.m. to 5 p.m. basis; it needs to be there at the weekend as well, from Prince Philip to Morriston to Cardiff to Wrexham Maelor. So, that is the key for us, so that we can close the loop and link in to colleagues and community services if patients do not need to go to definitive care. If it is an old infarct, we could, perhaps, offer that disposition of care into the community as well.

[247] **Helen Mary Jones:** Has part of the problem been that you as a trust and the previous NHS trusts, the hospitals, have not been working to consistent sets of targets? For instance, you need to get your patient out of the ambulance as fast as possible so that you can go back on the road to be meeting your targets, but on the other hand they do not want people in accident and emergency departments for more than a certain time or it will get them into trouble. Has this been an issue? Is the work that the Welsh Government is doing now around more intelligent targets, focusing on patient outcomes rather than ticking boxes, going to help? Are there other things, perhaps, that we should recommend around the way in which targets are set? If that is the right direction of travel, would it be helpful for us to say that we think that it is essential that those targets, when they are reset, are compatible?

[248] **Mr Jenkins:** It is beginning to help even now, from board level down, in terms of dashboards and balanced score cards. It is almost changing the focus to patient outcomes, to looking at compliance and diagnosis, and that comparative analysis with our medical advisers in the hospital trusts. That is a biggie for us, looking at the patient outcome—we are using a lot of it under the 1000 Lives banner—and being part of that data capture at the end point of discharge. We have never been privy to that. The patient clinical record goes into casualty, then it goes on to the ward, and then there is a point of discharge, and we have never been part of that loop. So, that mindset is changing and we are part of the data set. We are starting to realise what we are doing wrong, but also what we are doing reasonably well in relation to primary care information systems and the early work on stroke. I have to say that that has been quite positive.

[249] **Darren Millar:** That is encouraging. That brings us to the end of our questions. Thank you, Andrew. Are there any further comments that you would like to make before we close this particular part of our meeting?

[250] **Mr Jenkins:** No. Thank you for the invitation.

[251] **Darren Millar:** We have very much appreciated your evidence and we will make sure that you are sent a copy of the transcript, so that you can correct any errors. That concludes this item. Thank you.

10.55 a.m.

Cynnig Trefniadol
Procedural Motion

[252] **Darren Millar:** I will now ask the committee to agree to hold the remainder of the meeting in private so that we can discuss our draft report on the use and regulation of sunbeds and the Welsh Government's draft budget. I move that

the committee resolves to exclude the public from the remainder of the meeting in accordance with Standing Order No. 10.37.

[253] Are there any objections? I can see that there are none.

Derbyniwyd y cynnig.
Motion agreed.

Daeth rhan gyhoeddus y cyfarfod i ben am 10.55 a.m.
The public part of the meeting ended at 10.55 a.m.