CORRECTED TRANSCRIPT

RURAL AND REGIONAL SERVICES AND DEVELOPMENT COMMITTEE

Inquiry into cause of fatality and injury on Victorian farms

Leongatha – 7 April 2004

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Associate Professor D. S. Pedler, director, Gippsland Regional Clinical School, Monash University (sworn).
The CHAIR — Welcome, everybody, especially Peter Ryan, the local member and Leader of The Nationals.

Under the powers conferred on this committee by the Constitution Act and the Parliamentary Committees Act, this committee is empowered to take all evidence at these hearings on oath or affirmation. I wish to advise all present at these hearings that all evidence taken by this committee, including submissions, is, under the provisions of the Constitution Act, granted immunity from judicial review. I also wish to advise witnesses that any comments made by witnesses outside the committee’s hearing are not protected by parliamentary privilege. Daryl, for the purposes of the transcript would you please provide your full name and address and, if you are representing an organisation today, your position within that organisation?

Prof. PEDLER — My name is Daryl Stanley Pedler. I am the director of the Gippsland Regional Clinical School for Monash University, which is situated at Traralgon.

The CHAIR — If you give us your presentation now, we will have some questions afterwards.

Overheads shown.

Prof. PEDLER — Can I first say that the material I am presenting today is part of a professional doctorate study I am undertaking and I need at the beginning just to acknowledge my supervisors, Dr Mardie Townsend and Professor Damien Jolly from Deakin University and Dr Lesley Day from Monash University. I am aware that Dr Day has presented material to this inquiry already and the material that I am going to be presenting I hope is complementary to the material that she would have presented before Christmas. I also need to acknowledge our statistician, Matthew McGrail, whose office is just down the corridor and of whom I make great use.

The project that I was undertaking that I will report on today had two main aims. One was to look at the nature of farm injuries presenting to the emergency department of the Warrnambool Hospital. The second was to compare the computer-generated data in that department with the clinical record. The scope of the project is a review of six years of farm injury data presenting to the emergency department of that hospital over the years 1996 to 2001. At that time I was the director of emergency services at that hospital, so that gave me access to the computer data as well as the medical records and obviously as well to the patients. What we did was identify the cases from the injury surveillance data that the emergency department supplied — that is, the Victorian injury surveillance and applied research (VISAR) data which Dr Day, I think, would have talked to you about last year and I will outline again in a moment. Basically it is a computer database of information. Having identified the cases, I then reviewed all the relevant case notes, either the emergency department note or the inpatient note or both, as appropriate, and compared the clinical record data with the computer-generated data. As I said, this represents work in progress and there is still considerably more analysis yet to do.

In essence, over those six years we had 1035 patients present who were initially identified as farm injuries. On reviewing the notes, 997 of them in actual fact were acute farm injuries. It is that data I will be presenting to you. The first of the key results — I need to stress that this is obviously from a Warrnambool area perspective and whether it is extrapolatable to the wider perspective is another question — is that the frequency of farm injury presentation over those six years increased. The second is that the age of the patients presenting approximated very closely the age of the farmers in the area. The third is that I also gained the distinct impression that farm injury severity appears to have been underestimated previously in surveys that had been undertaken. The fourth is that the farm is also quite clearly a dangerous place for leisure activities. Finally, there was overall a good correlation between the computer data and the clinical record data.

In brief, the injury surveillance system works as follows. A patient presents and the triage nurse who sees the patient identifies that patient presenting as coming as a result of a new injury. I need to stress the word ‘new’ because follow-ups of injury are not in this data — so it is new presentations. The system then records information on those acute injuries — that is, the new ones — including the outcome of that visit and the demographic details. The data is categorised and progressively recorded: there is an event description in text form that is put in on patient arrival; and then the other six categories listed on that slide are usually put in at the end of the consultation, as the patient is leaving or has just left the department. The six categories listed there are all simply a keystroke against a particular category. I have listed, for example, that the farm is one place of injury. It does not necessarily mean work-related injury; it means any injury occurring on a farm. Because of the way the system works, where another place of injury is house, it is almost certainly farm and not farmhouse.
Having said that, 71 or 72 per cent of those were work-related injuries. You will see directly that another 19 per cent were leisure-related injuries.

Some general information on the results: over the six years the average was 166 cases per year. That average figure was exceeded in 1996 and in each of the last three years. Indeed the highest number of presentations in any one year was 210, in the last year of the collection. That is over 25 per cent above the annual average. I believe the frequency as recorded is likely to be an underestimate. I have two reasons for believing that. One is having worked in that department for 15 years and realising that cases get missed — ‘Oh, heck, I didn’t realise that was an injury’, for example. That is just routine activities. Also, as I reviewed those 1000 case notes, I found in those case notes another 42 cases of those people presenting with another farm injury that did not get recorded in the injury surveillance data. Clearly one would presume that there would be other cases that had not been recorded as well, so I would be quite confident that figure is in actual fact an underestimate.

The commonest injuries are listed on the slide. There is probably no great surprise that wounds, fractures, sprains and strains make up the greater proportion, and the commoner sites are the limbs and the head and neck. In the upper limb it is worth noting that two-thirds of the injuries were hand injuries. By comparison in the lower limbs they were by and large evenly spread as you went down the leg. There was a lower proportion in the hip and then pretty equal as you went down. I put the word ‘multiple’ in brackets there because it is an issue with the computer system, in that if you have more than one injury in theory it becomes multiple. Some of those multiples may in actual fact have been reasonably minor; it could have been a cut on one arm and a broken bone on the other, for example — significant, but not what one would consider major trauma. When I get to talk in a moment about comparing the clinical data to the computer data, a number of the inaccuracies relate to being able to go to the notes and say, ‘That multiple really was just that one bone rather than a multiple injury’, and I will explain that a bit more in a second.

The commonest causes are as listed on this slide. There is reasonable information that suggests that the rate of injuries on a farm not surprisingly is related to the workload on that farm. In that sense dairy farms, and most of these are dairy farms because of the nature of the area, are working with animals and are thereby fairly labour intense. Animals lead; struck by or struck on something, so struck by a spanner that has come loose or hit your head on something or other, for example, make up 17 per cent; motorbike is 14 per cent, and motorbike usually means four-wheel drive or ATV; and falls or cutting objects.

The graph that is on the slide is comparing on the blue line what I would call the normal injury experience of the department. If you follow the blue line down, it starts high and then peaks again — it is hidden under the other one and comes down — and that is really the normal injury experience of almost any emergency department anywhere, that the great peak of injuries is in the 15 to 25 to 30-year-old age group, which is hardly surprising. It then tapers off and there is a secondary peak in the older people, usually 70 plus. That is the normal injury experience of the emergency department in Warrnambool. Compare that to the pink line, which is the farm injuries. We are looking here at percentages, so we can compare the two. Farm start low, come up and then it is not quite even, but across from age 15 right out to age 60 there is still a very significant level of farm injury. So the age pattern of farm injuries is significantly different to the age pattern of the normal injuries that come to the department. I was trying to put in a second graph for you, but I could not succeed, which then compares that pattern to the age pattern of farmers in the area. That pattern is almost the same as the age pattern for farmers, the only discrepancy being in younger women between 15 and 20 where farm injuries are overrepresented.

Here is a bit more about admission rate and injury severity. The best proxy figure that I could get for injury severity was to look at admission rate. The admission rate for people injured on farms was 27 per cent. That compares to the overall injury experience of the department where the average admitting rate is only 14 per cent. So people injured on farms are admitted to hospital at twice the rate of other injuries, suggesting that those injuries clearly are more severe.

However, in addition when one reviewed the case notes there was another 4 per cent of patients who were subsequently admitted, almost always the following day. So the emergency department data would record that they were discharged, because they were discharged that particular day, but they were brought back the following day for some usually day case procedure, such as manipulation of a plaster, examination of a joint under arthroscope or something like that. So there is an extra 4 per cent admission rate. If one looks at the inpatient stay, about four-fifths of people stay one or two days, 8 percent stay up to a week, 9 per cent stay up to a fortnight, and 4 per cent stay over a fortnight. In addition to those who were admitted there is another 15 per cent of patients who were seen
again in the emergency department at least once, and a number of them were seen more than once. So there is 46 per cent of people — that is, 27, plus 4, plus 15 — for whom their visit to the emergency department was not a solitary event. They came again or were admitted.

Very quickly, I have some other information on admissions. The length of stay for men was 3.7 days, which is just about the hospital average for all admissions. For women it was 5.3 days; I do not know the answer for why that is at the moment. The commonest injuries, not surprisingly, were as listed on this slide — that is, fractures, wounds and so on. The commonest regions are again no great surprise. Interestingly there was a trend to a longer length of stay in the preschool children and in those over 55, which is again not uncommon because one would expect people my age and above to recover at a lesser rate than someone in their 20s, and in women. They were all trends and not statistically significant.

A quick word about leisure activities. Leisure activities made up almost 20 per cent of the presentations. Interestingly 32 per cent of those people were admitted. The commonest causes of leisure activity injuries on farms were related to horses, and that was more commonly girls and women up to about age 25; motorbike injuries, and that was almost equally the other way — it was guys not confined to 25 up to a slightly higher age, but commonly motorbikes were guys; and then falls. While leisure activity injuries were commonly in a younger age group they still made up a significant proportion of the injuries that presented.

Briefly comparing the computer data with the written record data, the accuracy of identifying the farm as the injury site was 99 per cent, which is nicely encouraging. The details in terms of the six characteristics that were looked at was 68 per cent. Of the inaccuracies, quite a lot of them were related to the fact that the clinical data was more specific than the computer data. The computer would have boxes like ‘unknown’, ‘unspecified’ or ‘other specified’, for example. When you read the clinical notes you could take them out and say, ‘In actual fact it was such and such’. So while that is a reasonable inaccuracy figure, most of them were related to issues that were readily and easily explainable. Some of the others might have been when the injury was listed as happening to the thigh when in actual fact it was the knee, for example. Of the inaccuracies, two-thirds of them only had an error in one item, and the items where they were in error are listed there.

I am not an economist, and I do not pretend to have a lot of economic information, but at the Monash University Accident Research Centre, Wendy Watson and Joan Ozanne-Smith produced a paper that suggested in the year 2000 in Victoria the average cost per injury was $6253, but if one plotted that on a graph the average cost increased very steeply with age. If one applies that average figure to the patients presenting in Warrnambool, it means that the average all-up costs of those patients was just over $1 million per annum.

In summary, I have looked at the initial data analysis of patients presenting to the emergency department in Warrnambool, and it appears that the injury frequency is increasing, that the severity of farm injury is greater than first thought, that injury causes significant costs, that the farm is also a dangerous place for leisure, and that generally there is good correlation between the computer data, which is reasonably easily available, and the clinical record data. Thank you.

The CHAIR — Thank you very much for leaving that information with us.

Mr CRUTCHFIELD — On your VISAR data, can you inform the committee if there are any ways we can improve that data collection directly at emergency departments and/or is there other data we are missing out on, whether people are presenting to just their general practitioner and therefore not going to the emergency department and perhaps then coming in subsequent to that? How do we go about collecting all the data? Other presenters have brought it up as an issue.

Prof. PEDLER — Firstly, in terms of collecting the data, the data is inputted usually by a triage nurse, which is another task that person has in addition to every other task they have. That in essence is a resourcing issue — that this is a person who has multiple jobs. Secondly, there are many definitions associated with that data and you have a different nurse on each shift — and usually different nurses inside a shift — inputting that data, so it is easy to imagine there are errors. People need more training and a better understanding of the system and more ability to actually put the data in. I am sure some of the nursing people would say at the same time that the computer systems are not the easiest to use. That is improving.
With respect to general practice, I undertook a brief survey — which methodologically was pretty flawed — back in 1997, trying to compare general practice presentation of farm injury with the emergency department presentation of farm injuries as part of my doctorate. The next limb is to actually repeat that study, starting later this year. The very rough figures were that for every patient that presented to Warrnambool Hospital another patient presented to general practice somewhere in the area. My hunch, without any fact to back it, is that is an underestimate because the compliance at the general practice level of the survey was not huge. I would believe for every patient who comes into the emergency department at least another comes to a general practice.

Mr CRUTCHFIELD — Have you got a paper on that for previous years — it is a bit dated?

Prof. PEDLER — I have prepared the material. I have not published it. I have a brief summary of it.

Mr CRUTCHFIELD — Would it be possible for the committee to have the brief summary of that data?

Prof. PEDLER — If I can find it.

The CHAIR — With horse accidents, we heard yesterday that there was a bit of suspicion that maybe any horse accidents might have been included as a farm injury, even if they happen at a pony club or something along those lines. Would that be correct?

Prof. PEDLER — I was worried about that as well. I have been through the data. It is part of the bit I am still analysing — it is not complete, so I have not presented it. I have been through that data and there were clearly some that I have excluded and part of those 38 cases that I excluded before I started were related to that sort of thing. I would have a suspicion that there would still be a few in the data that are there by mistake, but they are a very small component because I have excluded them already. Part of the hassle in that is that some of the pony clubs are actually on farms and they are difficult to exclude. They may well still be in there, but I believe the vast majority of those that happened on farm are leisure-based activities, but not all; some of them are work-related activities.

The CHAIR — With the increase in injuries that you noted, do you think there were any reasons why that occurred?

Prof. PEDLER — I do not know the answer at the moment. Looking at the data, there is nothing that sticks out as being very obvious. There seems to be a general increase. I have a couple of suspicions, but I have not analysed them.

Mr CRUTCHFIELD — Do you think it is because less are going to the GPs and more are presenting at the emergency department?

Prof. PEDLER — No, I do not think that is the reason. By and large the general practice population in the area I was looking at was pretty constant over that time, so I do not think that is the reason.

Dr NAPTHINE — How did you differentiate between work-related injuries and leisure-related injuries? For example, if somebody was out controlling vermin by spotlighting and fell off the back of a truck and injured themselves, would that be considered work related, as in they were trying to control vermin on a property, or would that be considered leisure related because they were out spotlighting at night?

Prof. PEDLER — I do not know the answer to the last little bit. The answer to the first question is: it was done on advice from the patient. If they said this was leisure, then it was accepted as leisure; if they said it was work, it was accepted as work.

Dr NAPTHINE — Is there an inherent bias there, that the farms are more likely to say it is work in terms of potential ability to making insurance or WorkCover claims, or whatever, if they were employees?

Prof. PEDLER — I think it is unlikely because my experience of working in the department is that the relationship between work-related injuries and workers compensation injuries is significantly different. People may say it is work but still not claim workers compensation because of a range of reasons. So I suspect that is not a reason. Whether a person decided to call a particular thing leisure and another person with the same thing decided to call it work, I do not know.
Dr NAPTHINE — Did you or could you make any judgment about, shall we say full-time farmers and work-related activities versus, say, hobby farmers?

Prof. PEDLER — No, I did not and I do not think I could have, given the nature of the area, where most of the people involved are either full-time farmers or full-time farm employees.

Mr CRUTCHFIELD — In light of the data side, have you any anecdotal or gut feel about solutions, whether it be about particular bodies that need additional resources; what is your feel about reducing the frequency of people presenting? Have you got any ideas about that?

Prof. PEDLER — I will put it under three headings, and I will be very brief. The first is that I think there is an issue about the nature of a farm property that we have not looked at before. As I started to analyse the data, we expected things like animals, machinery and so on, but issues related to falls and issues related to running into fences and so on, I think in actual terms of farm property itself it is an area we have not looked at enough. Secondly, not so much in the last couple of years but prior to that there appeared to be an increase in motorbike-related accidents and all-terrain vehicle accidents, and I believe there is an issue about all-terrain vehicles. I think there is a general issue about working on farms and realising the dangers and increased education activities there. Whether there is a disciplinary or legislative issue there in terms of workers compensation-related insurance or occupational health and safety issues, I do not know.

The CHAIR — Thank you very much for giving us your time today, Daryl. I am sure your information will be very, very helpful to us. You will get a copy of the transcript. You can correct any matters of fact or grammar but not matters of substance.

Prof. PEDLER — Thank you.

Dr NAPTHINE — Daryl, a lot of this data is preliminary. What is the time frame for getting some finalisation of that we could perhaps use in our report?

Prof. PEDLER — When are you reporting?

Dr NAPTHINE — By August.

Prof. PEDLER — I am hoping to have most of it done by approximately mid-year.

Witness withdrew.