PO Box 745 Indooroopilly QLD 4068 AUSTRALIA Ph 1300 662 173 or +61 7 3378 26
Email info@pacificsolutions.com.au Web www.pacifictranscription.com.au

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MEDICO-LEGAL SOCIETY OF NSW INC.

SCIENTIFIC MEETING

WEDNESDAY, 9 SEPTEMBER 2015 AT 6.15 P.M.

THE TOPIC: CONTACT SPORT: WATCH YOUR HEAD

SPEAKERS: DR ARTHUR SHORES
MR ALAN SULLIVAN, QC

QUESTION TIME

DR MICHAEL DIAMOND: Thank you very much. We have had two excellent speakers. There are a lot of issues I am sure that would be relevant to people in the audience.

Just a little bit of background. When we considered this topic, you might think it was all the footballing macho characters on the Committee who came up with it. However it was not. It was in fact the mothers whose young children are playing contact sports who were the most interested in this topic and that gave it legs.

I open the floor for questions and we look forward to the responses.

QUESTION: Could I ask Dr Shore, what is happening in boxing where the object of the exercise is to knock the other fellow senseless? Do you have to have a medical officer on hand?

DR ARTHUR SHORES: We do not know much about professional boxing because it is very hard to do research with them. Amateur boxing is quite interesting because they have a rule called the "outclass rule". If the referee thinks the person is out classed, they have to stop the bout. This has reduced the number of concussions. In a funny way, it has become a much safer sport. I am talking about research that I read some years ago. I do not know whether those rules have changed, because they change all the time, and so I cannot talk for present boxing. In professional boxing, you are allowed to keep on fighting even if you are obviously "off with the fairies" and severely concussed. It is a very hard area to research.

MR ALAN SULLIVAN: May I just add, from a legal point of view, that is not the case anymore. In 1991 there was a case of a boxer fighting for the World Boxing Organisation middleweight title, who was winning the bout easily until the 12th round when he was knocked out. I think his name was Davis actually and the case was called Davis v The British Boxing Federation, English Court of Appeal. He eventually suffered permanent neurological damage and recovered a large sum in damages from the British Boxing Association because the English Court of Appeal held it was its duty to have a medical practitioner at the bout. The view was held that if a medical practitioner had been at the bout at least some of his multi-neurological deficits would have been avoided or reduced.

QUESTION: I would like to ask both speakers. Using football as an example, it seems reasonable and required that we have an active medical record that follows the player so that these cumulative events can be actually ascertained?

DR ARTHUR SHORES: I certainly think that is very logical. However the logistics might be very difficult. That said I think it is worthwhile pursuing an idea of that nature.

MR ALAN SULLIVAN: I agree. It is done in professional rugby league where every club does keep statistics. The problem again is at grassroots level and school level. How many unreported or undetected concussions are going on with children? It becomes, because of the very nature of sport, problematic to keep such records. However in an ideal world that would be essentially my view.

QUESTION: Thank you very much gentlemen. You have both given very thoughtful and intellectual presentations.

I would like to make a comment and then ask a question. I believe that there is clinical significance in repetitive minor head injury, particularly where it is towards the serious end of the concussion scale and I think that will be shown in the next few years. The reason for that is that imaging is changing very quickly now. MRI scanning is becoming much more accurate with the larger machines which are now coming into Australia and show very detailed pictures of the brain itself. The other area which is increasingly important is the actual imaging of fibre tracks and a combination of those two will show that repetitive injury does cause significant disruption of brain tissue.

The question I have is to Arthur. Eighty five to 90 per cent of people get better after these concussive injuries while 10 to 15 per cent do not. I see them and you see them. I am wondering what are your views as to the patho-physiology in those people who have fairly stereotypical presentations. They all say the same thing and so I do not believe they are either neurotic or malingering because if they were, I would expect some originality in the symptoms. I wonder whether repetitive brain injury in some way links the cognitive response to anxiety and fear and so we see the overlapping post-traumatic stress. I would appreciate your comments.

DR ARTHUR SHORES: Thank you Michael. Are you asking about a single concussion or multiple concussions?

QUESTION: Multiple.

DR ARTHUR SHORES: I think with the multiple concussions that you are quite correct about the new imaging and the long tracks etc. It is going to help us considerably and I think those people do have a case. My concern is the single episode where they have a complete de-compensation. I do not believe that has a neurological basis. However the multiple concussions are a different group altogether and they need a lot more research. If you read the American literature, you will find they put those people in the same category as the single concussion who de-compensates. My view is that they are two different groups of people.

QUESTION: My question is for Dr Shores. Mr Sullivan mentioned the Sam Burgess example. Could you explain to the lawyers in the room how is it that someone can be well enough and compos mentis enough to play the game of his life but not remember anything about it?

DR ARTHUR SHORES: I think those cases where the person is amnesic are because a very special centre in the brain, the hippocampal area, is not functioning, whereas the rest of the brain is working quite well. All the automatic moves and the other things that they have been trained to do, they can do, but because the hippocampal area is not operating correctly, they do not lay down that information and so do not remember it. People with amnesic syndrome on an IQ test can come out as quite normal, but on a memory test they will do abysmally for the same reason.

QUESTION: Could I ask whether in attempting to reduce the incidence of concussive injuries in contact sports, whether helmets are effective, and assuming they are, looking at the legal implications of whether the mandatory use of such helmets would be beneficial?

MR ALAN SULLIVAN: Arthur will be able to answer this better than I can. However my reading of the literature is that helmets and head gear are a problem rather than a cure. Firstly, there is no proven reduction in the number of concussion injuries with the use of them. Secondly, in sports like American football, the helmet becomes a weapon which adds to the damage. Thirdly, the problem is that people believe that they are immune from risk, or

invincible, by the use of such equipment and therefore play in a more aggressive way when helmets and head gear are used. Hence the research that I have read would indicate that they are counter-productive and therefore should not be introduced as compulsory safety items in the sport. Arthur may have a different view.

DR ARTHUR SHORES: I have not done any original research on helmets myself but my understanding of the literature is exactly as Alan describes it. I seem to remember one study that helmets in rugby players were useful for preventing cauliflower ear but not for preventing brain injury.

QUESTION: When you talk about helmets, the explosion in their use has occurred in the last 30 years in cricket against fast bowlers. A cricket ball is quite different. It is more like a small shell, with a much more concentrated force as seen less than 12 months ago where somebody died after being hit in an unprotected area. I agree with what you say about helmets in a collision sport but for cricket they do other things. We have seen cricketers not suffer depressive fractures and certainly less severe facial injuries due to the wearing of helmets.

DR ARTHUR SHORES: I would agree with that entirely. I was really referring to the rugby helmets. Cyclists must wear helmets, horse riders must wear helmets, cricketers must wear helmets under certain conditions. Obviously there is a role for helmets but not in the rugby union or rugby league arena.

MR ALAN SULLIVAN: I was confining my remarks to concussion injuries as such. Quite clearly with the Phillip Hughes incident to which you were referring, it makes sense that in skiing and cricket and sports of that nature, helmets are used for reasons other than prevention of concussion.

QUESTION: Not just concussion but cricket particularly because of the nature of the cricket ball. It is a much more concentrated application of force.

MR ALAN SULLIVAN: Yes, I suppose baseball would be in the same category.

QUESTION: There is a very large literature on the use of helmets in motor cycle accidents, particularly from the United States. The evidence is quite clear that wearing

a helmet as a motor cycle rider, decreases your risk of death and should you have a head injury, decreases the severity of the injury. We are talking about people on the lower end of the spectrum, and I agree with the speakers that at the low end of the spectrum it probably does not make any difference. Similarly, if a motor bike rider has a full face helmet that will decrease the severity of the facial injury. At the lower end of the spectrum I do not think it makes a difference and agree it probably makes things worse.

DR MICHAEL DIAMOND: I am going to take the opportunity to have the last question. It is a cynical thought but if I was that doctor who was in the position that you were describing in the sports team and the odds of getting the calls right would increase enormously if you made that call the next day, why would doctors front up in that role, carrying that sort of liability, and not just provide their expert opinion later? It just seems to me to be a very invidious position to be in.

MR ALAN SULLIVAN: From a sporting point of view, doctors have got to be there because the rules of the AFL, the NRL, the international rugby union and FIFA, at a professional level require there to be a team doctor to make assessments for concussion on the sidelines. FIFA has just introduced a rule which permits stoppage of the game for up to three minutes for the doctor to come on the field and make the assessment. I think it is all about combining a passion with a profession. That is why we love sports law and sports medicine. There are practitioners who love sport and who love their profession and they find it a way to combine the two. That is why they turn up.

DR MICHAEL DIAMOND: While you were talking, I was thinking that and I was also thinking that the big change we are seeing is the attitude of players towards concussion. In the olden days it really was considered tough to be knocked senseless but to keep going. Not only that, but to drink heavily that evening at the clubhouse was considered to be an even more impressive act. This is not the case anymore. The writing of Peter Fitzsimmons that was quoted earlier is very important because people are seeing it not as toughness, but as brain injury. It is a shift in attitude and I welcome that.

I would like to thank our speakers. We have had a really excellent evening of presentations and expertise to which we are very fortunate to have had access and I would like

you to join me in thanking our speakers in the usual way.

MEETING CONCLUDED