

Why is Australia a world leader in sports medicine?



I came up with the title of this latest column after a trip to Sweden last year. I was planning to give a couple of talks to a group of sports physios and doctors in Linköping and suggested a couple of potential topics to my host, Jan Ekstrand. He liked the suggested topics for my talks but asked me if I could combine them into a single talk and then said 'please do the second talk on the topic of why Australia is such a leader in sports medicine'. This is certainly a good way of buttering up a guest, so it didn't take much time for me to accept the offer. It was also an interesting exercise – are we really a world leader in sports medicine and, if so, how did it happen? Of course, apart from giving away our trade secrets while I was visiting Sweden, I was busily making my own observations about why Sweden is such a leader in the same field. It comes as a compliment of the highest order that Swedish sports medicine experts (who it goes without saying

are world leaders) think so highly of us, but it also reflects highly on them that they want to learn anything they can from other leading nations in the field.

While this topic was floating around in my head, I read an article in the SMH that quickly made it to the other side of the world, in which Bernie Mandic (Harry Kewell's agent) described English sports medicine as 'a disgrace'. He tossed in that Australia has the best doctors in the world (I presume he meant sports medicine and orthopaedic) and that his client now seeks an Aussie opinion whenever he gets injured. This was a rant that makes Dr J look like a fence-sitter and with not quite the same cool objectivity of Jan Ekstrand. There may have been a dose of truth in the Mandic comments, but in the English press they were mainly painted as bitterness from the agent of an injury-prone player who can no longer command a start in the EPL. It is dangerous to read

too much into either side of this argument. As an Australian player in England, Kewell may have been in a different situation compared to continental Europeans. It is almost routine that an injured Italian EPL player seeks a second opinion in Italy, a Dutchman will travel back to the Netherlands etc. For Kewell playing in England it was a 20 hour flight each way if he wanted to see someone in Sydney, so it is a luxury that may have seemed over the top earlier in his career. In the end, his agent has said that Kewell prefers Australian sports medicos to English. But does this really mean anything when we can presume that a Romanian EPL player might prefer Romanian doctors to English ones for parochial reasons?

A further twist occurred as the 'final' version of this Dr J article was getting laid out, when I read the announcement that Peter Brukner had been appointed director of sports science and medicine at Liverpool FC in the EPL for season 2010–11. There has been previous speculation about the poor attitude of EPL (and other high turnover professional football) teams towards medical recruitment in the past¹. It sounds as though the Liverpool appointment process may herald a new era of professionalism in the approach of professional sporting teams to their medical appointments. Despite the temptation (which the media found delicious) to link the Brukner appointment to the Mandic comments about Kewell's treatment at Liverpool, I gather that the process was anything but knee-jerk. Liverpool had hired a top consultant in the sports medicine field to conduct a worldwide search for the best available sports physician and happened to come up with an Australian. Most professional clubs wouldn't dream of any other process when trying to recruit, say, a CEO or a CFO. Now that one of the big boys has done it properly for a CMO position, any top club in the future is going to look silly if they make a medical appointment based on Dr X 'being someone's mate' rather than Dr Y having a world-class CV. The fact that a solid process in the UK has tossed up an Australian name suggests that more may follow in the future, not only from Australia but also some of the other leading sports medicine nations in the world¹.

I'll get back to my original question in a roundabout way by moving from Sweden to Norway: another world leader in sports medicine, particularly in sports injury prevention research. They're such world leaders they've held the only two World Congresses to date on sports injury prevention and they'll host the third in Monaco next April only because the IOC have thrown money at them. Unlike the American World Series of baseball, when the Norwegians host a World Congress on sports injury prevention everyone else

in the world comes to participate. At Tromsø, they hosted a session revealing how they manage to get so much government funding into this field. The answer was that their best female handball player tore her ACL just prior to the Sydney Olympics and the Norwegian government was convinced that this particular injury had cost the country a certain gold medal, one which would probably go instead to one of their bitter Scandinavian rivals (...it turned out to be Denmark)! So they decided to pour millions into sports injury prevention research. This had the double aim of hopefully preventing the next major ACL and also giving the Norwegians a gold medal in another field (sports injury prevention). Ironically (for us Aussies) the only nation threatening them for this metaphorical 'gold' is New Zealand². And it makes you think that if you could tear an ACL in swimming and Ian Thorpe had done so just prior to the Sydney games that maybe our Federal government would have more than an ounce of interest in sports injury prevention³.

The Oslo Sport Trauma Research Center has an aura about it, from the quality of its research output all the way up to the splendour of its leader Roald Bahr. Not only is Roald seven foot tall and fit as a Viking, but he writes and speaks better English than the vast majority of us natives. When I give a presentation, I fit more 'ums' and 'ahs' into my opening sentence than Roald would have in the entire 200 talks he makes around the world in an average year. And even though Roald is somewhat of a beacon in his own land, the standard of English speaking across all of Norway and Sweden is enough to embarrass most Australians who venture there (i.e. they speak more proper English than us bloody Oz-tray-lians). So how the hell does this happen? Well when you travel through Europe every 200km or so you venture, you'll be hearing a different language spoken. If you live in one of the bigger European countries (like France or Germany) it might be 500km, and you might suffer slightly from the delusion that your language is somewhat special. But if you are a child living in Scandinavia, or the Netherlands or Switzerland, then you realise that your mother tongue is but one of many and that one of your destinies is that you are going to grow up to be an outstanding linguist.

Now we put the football boot on the other foot. What nuances in English would a Swede or a Norwegian not fully appreciate? How about the indignant fighting between a Collingwood fan and a Melbourne Victory supporter over whether the Victory have just beaten Sydney FC in a game of 'football' or a game of 'soccer'? Because to a Scandinavian they are exactly the same thing, but to an Australian the right to call your

code 'football' is an assertion that you believe it is superior to the many other varieties on display in the same country. Just as a European doesn't have to travel too far to hear a new language spoken, an Australian doesn't have travel a great distance to find a new 'code' of football being played. A European is far more likely than an Australian to understand the Latin derivation of the word 'quadriceps'. But an Australian is more likely to understand that Aussie Rules and soccer players are at risk of straining their quadriceps on their kicking leg, when doing a short kick running at a fast pace; league and union halves can tear a quad with the same mechanism, but it is rare in other league and union players, including the goal kickers. Just as Australians are relatively ignorant of those who don't speak the current *lingua franca*, many Europeans are equally ignorant of those who don't play the 'world game'. It probably helps to fully understand English if you also speak French, German and Spanish. Just as it probably helps to understand how to manage and prevent injuries in soccer if you know a lot about Aussie Rules, rugby union and league.

There is another fundamental difference to working at the top level in professional sport as a doctor, physiotherapist or sports scientist in Australia. You earn a pretty good living – not as much as the top players, of course, but possibly more than a rookie player who is playing in the second tier. A sports medicine or science professional at a top European soccer team might also be on a decent wage, but the annual amount would probably be less than some of the first team players earn in a week. The physiotherapists in the EPL aren't millionaires, but they are entrusted to serve the multi-millionaire players. And for the most part, serve they do. There is a hierarchy at a European soccer club, with the players in the penthouse and the doctors, physios and conditioners well and truly on the ground floor, just above the ticket sellers in the basement. If an EPL player doesn't like the management that a physiotherapist has suggested, it is seen that the physio has a problem, not the player. Just as a billionaire or rock star can tell an expert sommelier that his chosen wine isn't any good, a European soccer star can decide that placenta treatment is what he is using for his ankle sprain and at most clubs the physio or doctor can't over-rule.

A colleague of mine who works in the IPL (Indian cricket, not European soccer) told me a story about interviewing for a fitness coach at his franchise. One of the questions posed to the candidates was 'how would you handle it if one of your players wouldn't follow your instructions on a training drill?' Apparently every candidate gave the same answer, which went along the following lines: 'If it was a junior player I would

tell him that it was very important to defer to my expertise in this area, but if it was Sachin (Tendulkar) or Yuvraj (Singh) then of course I would defer to his standing in the game and let him do the drill as he chose'. This is India, a land where class is very rigid, but it would come as a surprise to Aussies that many conditioners in the EPL are living in a similar world, even if they wouldn't admit it as readily as the Indians would.

In Australia, the doctor tells the player what test he is getting and the conditioner tells him how many run throughs he is doing. Too often in the top European teams it is the other way around. But what is to blame for this situation? Is it the fact that players earn 100 times the salary of the support staff? Is it the fact that a second opinion in the player's home country is a two hour flight away? Or is it just that Australia is one of the least class-oriented societies in the world? If Ricky Ponting was rude to a waiter bringing food to the Australian cricket dressing room, then not only his teammates, but his physio and fitness adviser would all get stuck into him. It doesn't matter if you are the captain and the highest paid player in the Aussie team. If you are in the same room as someone else, they are a 'mate' and worthy of respect for the job they do. Anyone who thinks they are above others is cut down very quickly in Australia, perhaps because many of us are only five generations from an ancestor thrown out of England for not being up to scratch.

So as an Australian team physician, physiotherapist or scientist, you are respected for what you do, you are master of your own domain and, hopefully, you are also accountable. In most cases, you keep your job by hopefully proving that you are at the top of your field, not because you spend your life sucking up to the players. Maybe you are even less afraid of losing your job compared to the sports medics working in Europe or the US because there are many other professional teams in the same city that you could work for, plus you'd have a healthy private practice if you gave up working for teams anyway. And your club is generally asking if there is any way your department can improve, because the salary cap is stopping them from buying better players and they need to get an edge off the field. Perhaps this is part of the explanation as to why Australian scientists and entrepreneurs have recently led the world with the development of GPS monitoring of players.

The best thing about the Australian sports science and medicine scene is that we don't seem to have a weak link, other than the aforementioned field of prevention on a national level, in which we should be embarrassed by our performance compared to New Zealand. Our orthopaedic surgeons make



millions, but amongst them we have some of the best sports surgeons in the world. Maybe we have surgical assisting to thank as a quirk which gives us de facto funding for the sports physician training program, but whatever the reasons, our sports physicians are also world class. Team doctors are typically sports physicians, compared to the USA where the job more often than not goes to a surgeon or the UK, where a GP might be more likely to be chosen.

Physiotherapy is a high status career in Australia, with one of the highest university entrance scores required to get into a course, even if the salaries at the other end aren't quite as commensurate. But our physios have good career satisfaction, because they are genuinely managing musculoskeletal conditions, not just following doctors' orders like they would in some other countries. Our sports scientists are genuine scientists, not gurus, with a high degree of research output. They were recognised by the AIS as being essential to athlete performance years before the equivalent status was given to them in many other countries. And our sports trainers, whilst not requiring the university degree that is the standard in the USA, are generally qualified even at fully amateur and junior levels.

It is important though that we have the same attitude as the Jan Ekstrands of this world. We aren't the world's best at

everything and we need to keep looking at the other world leaders and working out where we can improve. Logically you would think that the weight of money in European soccer would mean that England, Spain and Italy should surpass our expertise in sports science and medicine at some stage in the future. But logically you wouldn't think that the most talented soccer players would come from Brazil, yet they still do. We have our own hurdles in Australia, such as the fact that the Federal government for many years has snubbed the world's best sports physician training program under Medicare. There is of course the tyranny of distance, but for the reasons described above, maybe it has been a blessing rather than a curse for the Australian sports medicine and science professions.

References

- 1 Orchard J. On the value of team medical staff: can the 'Moneyball' approach be applied to injuries in professional football. *British Journal of Sports Medicine* 2009;43:963-965.
- 2 Orchard J. Preventing sports injuries at the national level: time for other nations to follow New Zealand's remarkable success. *British Journal of Sports Medicine* 2008;42(6): 392-93.
- 3 Orchard J, Leeder S, Moorhead G, Coates J, Brukner P. Australia urgently needs a federal government body dedicated to monitoring and preventing sports injuries. *Medical Journal of Australia* 2007;187:505-506.

Dr J



Peter Brukner at Liverpool

In late March, EPL 'big four' team Liverpool FC announced that Australian sports physician Peter Brukner would become its director of sports science and medicine for 3 years from the start of the 2010–11 season. Soccer fans based in Europe might need to Google to find a bit more about Peter Brukner, but in the sports medicine world in Australia he needs no introduction. He is the co-author of the acclaimed textbook *Clinical Sports Medicine* along with Karim Khan and he has been the long-time director and father figure of Olympic Park Sports Medicine Centre in Melbourne, one of the nation's leading clinics both clinically and in research. He holds an Associate Professorship at the University of Melbourne and has been both a media commentator in sports medicine and the Socceroos doctor for the last few years. He is a past editor of *Sport Health* and a past president of the Australasian College of Sports Physicians. Few sports physicians in the world, if any, would have as broad a CV covering team physician work, administration, publication and communication. There are no known links between Liverpool's current manager or CEO and Dr Peter Brukner, so this appointment appears to be as a result of a worldwide search for the best available team physician. However, Peter Brukner is not alone in Australia as a world class sports physician and his appointment is a huge credit to sports medicine in Australia in general.

On that theme, Peter Brukner won't be the first Australian doctor to work in the EPL – in fact his close colleague Chris Bradshaw, currently Geelong's medical director in the AFL, did a 2–3 season stint with Fulham a few years ago. Summarised below are some of the positives that Peter Brukner will bring to the table at Liverpool and some of the big challenges that he might face:

Positives

- Possibly the most important factor that Peter Brukner will bring to the table is the Australian culture that a sports medicine and sports science team should aim for world's best practice and that this is likely to return benefits to the club. In Australia the doctors, physios and sports scientists are well

paid and competitive. Teams are expected to spend good money in this area. It is slowly changing, but there is still a perception in the EPL that injuries come down purely to luck and that the team doctor position carries more privilege than responsibility. Peter Brukner will accept responsibility for Liverpool's injury rates and outcomes, and he'll expect the CEO to back him by spending good money to get the best assistant staff and facilities. You can take it as written that Liverpool will be using GPS monitoring of player workloads in season 2010–11, for example. This is baseline level sports science for teams in Australia but amazingly will still be somewhat innovative in the EPL.

- Anyone trying to cut Peter Brukner down might point out that there are others in the Olympic Park family who see more patients at the clinic or publish more first author original papers than him. However, this should actually be seen as a compliment – he is a great team builder. Too many clinics in Australia get stuck with one or two big name principals who smother the promising juniors underneath them, forcing them to move elsewhere to get into the spotlight. Peter Brukner has been a self-promoter, but even more so he has been an OPSMC promoter. He has attracted high quality staff in multiple disciplines (doctors, surgeons, physios, soft tissue therapists) and encouraged them to shine as well. He is a great team captain in the sports medicine field.
- His media experience will be invaluable. The media spotlight on the EPL Big Four is even more ridiculous than what the top Aussie teams put up with and most EPL team doctors and physios avoid it like the plague. However, this results in the managers making idiots of themselves on a weekly basis trying to explain injuries at press conferences when they don't fully understand what they are talking about. Peter Brukner will have the poise and confidence to try to explain, for example, that this ankle will be a slow-recovery because it involves the syndesmosis. Along with Peter Larkins and others, he has helped make Australian sports fans the most educated in the world about injuries. There is no reason why EPL fans shouldn't get treated with the same respect, hearing about the injuries from an expert who knows

what he is talking about, rather than from a manager trying to bluff his way through.

Challenges

- Premier League footballers are going to be much more difficult to control than, say, AFL players. In the AFL or NRL, the culture is that players will fully follow the doctor's instructions on injury matters 9 times out of 10. This doesn't necessarily happen in the EPL. In fact, the culture of players not respecting the medical staff and the medical staff disassociating themselves from the injury outcomes perpetuate each other. Peter Brukner will be on good money but perhaps getting paid 5% of what the top players earn. He'll need to earn their respect so that they will listen to him so he can do his job properly.
- Although there are huge positives with having been part of the Australian sports medicine culture, dealing with Spanish, Italian and German players (and national team doctors and surgeons) isn't going to be easy. His name will probably be known in the sports medicine circles, but many player agents won't know him from a bar of soap and he'll have to network there as well. Networking is an obvious Peter Brukner strength but he'll be slightly out of his comfort zone.
- Perhaps the toughest one is the personal grind from such a long season played in crap weather on the other side of the globe from his extended family and friends. From all reports Chris Bradshaw did a sterling job at Fulham, but his wife Sally is probably one of the few Geelong residents who raves about how good the weather is and amongst footy medics' wives, she would be the only one thinking how short the AFL season is. For the big European matches it will be all glamour for Peter Brukner, but it will be personally very tough reading about the Boxing Day Test or Australian Open tennis when preparing for an away match against Sunderland in freezing temperatures.

Dr John Orchard

