

# Infographic. Unravelling confusion in sports medicine and science practice: a systematic approach

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One of the challenges of working in professional sport is the constant pressure to be innovative, to adopt new strategies, techniques and technologies to gain that all important competitive advantage. Players, managers and chief executive officers feel the pressure to perform and win matches—often this manifests as a perception of needing to accumulate all those marginal gains possible and fear of missing out, that is, another team has a cryotherapy chamber, so we should too, even if it may not be effective. The

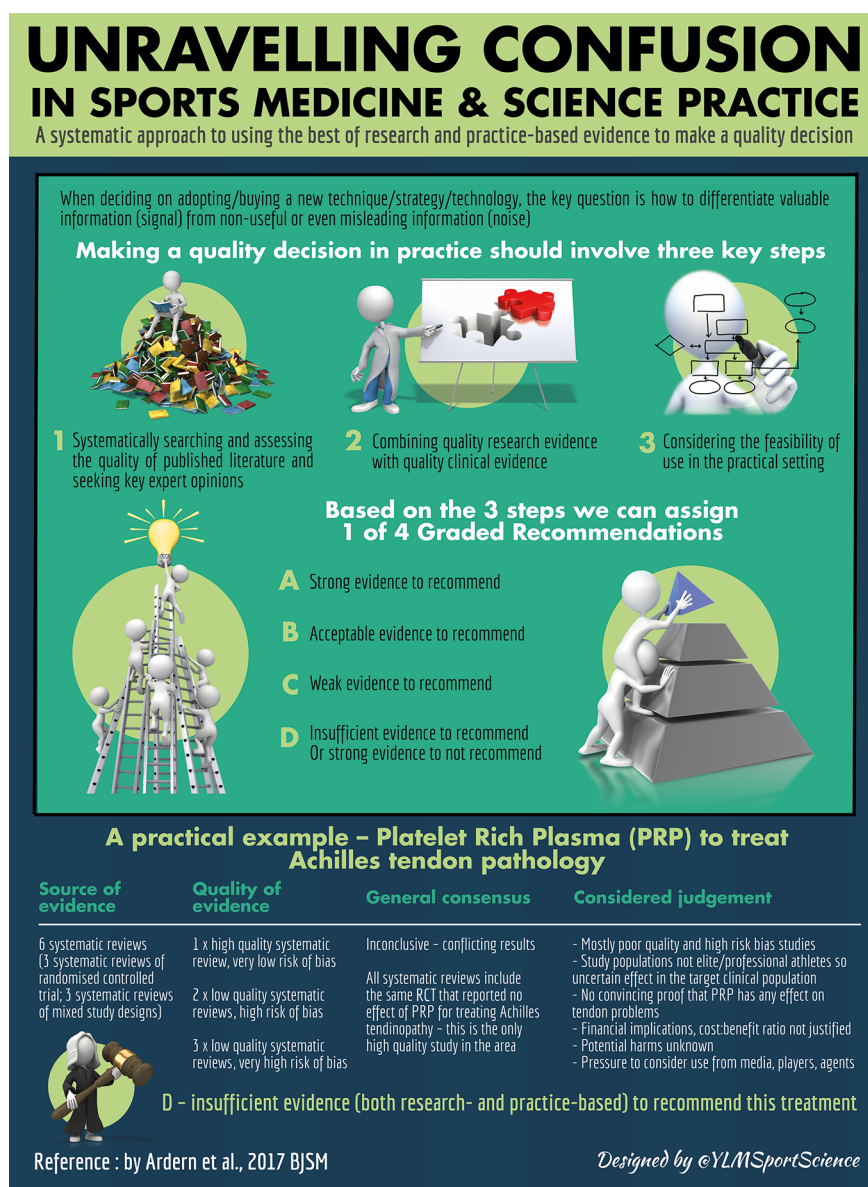
medical and performance team feel pressure to provide these so-called 'one-percenters' that players and managers and even the Board can obsessively chase. In this process, practitioners often come up against charismatic forces hawking the next silver bullet, magic potion or black box that will claim to win games, improve performance, enhance recovery and predict injury or talent. There is also the fact that huge sums of money can be made.

The reality is that sport leaps from one newly out-of-fashion approach

to the next shiny, miracle cure with such disconcerting speed that it leaves precious little time to thoroughly investigate all the claims made about any single intervention or technology. Of course, we all want to discover that miraculous, game-changing intervention. Perhaps this is a fool's errand? Getting the 'basics' right will provide better 'return-on-investment' than marginal gains, without having the basics in place. Unfortunately, the basics are usually not as sexy as marginal gains.

Performance teams frequently audit training, monitoring, injury rates/prevention strategies, return to play and recovery strategies, looking to identify ways they might improve (eg, Should we purchase a NordBoard? Should we replace our cold baths with a cryotherapy chamber? Should we invest in sleep pods or simply buy more comfortable pillows? Should we invest in computer programs to improve football cognitive functions? Or should we simply aim to train, sleep and eat well?). Practitioners also appreciate that peddling false hope and promoting new, untested interventions and technologies to players and management can be dubious.<sup>1</sup> Getting the balance right between being innovative while maintaining scientific integrity can be challenging, but finding this balance is key.

Following an evidence-led approach does not mean that the one-percenters are blacklisted. But it does mean that if practitioners choose to use them, it must be clear how they fit into a broader evidence-led plan. When deciding about such practices or technologies (eg, someone tries to sell us a sleep pod, an athlete requests a stem cell injection, and so on), practitioners need to be able to confidently assess the evidence and the veracity of the claims about the intervention or technology. We use a three-step process (supported by our embedded applied research team) to help us do this—(1) searching the research evidence and consulting key experts that may be working on currently unpublished research (research can often be playing catch-up to best practice and we must consider this), (2) assessing the quality of the research evidence (from the highest



level, eg, randomised controlled trials through to expert opinion), and (3) combining the evidence with our own practice-based evidence (eg, how feasible is this in practice, how likely is it to be beneficial, how likely is it to be harmful, what is the cost:benefit ratio).<sup>2</sup> In the accompanying infographic and linked paper 'Unravelling confusion in sports medicine and sports science practice: a systematic approach to using the best of research and practice-based evidence to make a quality decision', we share our systematic approach with you<sup>2</sup> to provide an example of how to search the research evidence, assess the quality of evidence found and combine this with expert opinion and current best practice. All in a fast and efficient way.<sup>2</sup> We hope this approach can help support your practical decision-making and enhance your ability to make quality decisions that you can be confident in. This process has helped us during four seasons to invest resources wisely (time, money, equipment, energy).

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