

# Three immediately applicable treatments: manual therapy, avoiding cortisone, and automatic external defibrillators

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Are you interested in neck and back pain or injury prevention? Have you injected cortisone? Do you think you might eventually die? If you answered “yes” to any of these questions this *Warm up* is for you. Recent world conferences for a broad range of clinicians provided many highlights.

## 1. MANUAL THERAPY IS HIGHLY EFFECTIVE TO TREAT BOTH NECK PAIN AND BACK PAIN.

For those who needed more proof of the effectiveness of manual therapy, and sadly there are some physicians who do, I share a key finding from the 9th International Congress of the International Federation of Orthopaedic Manual Therapists (IFOMT). A systematic review of manual therapy in neck or back pain concluded that the treatment was effective with a “number needed to treat” of only five. Thus, manual therapy was about 100 times as effective when used to combat neck or back pain as osteoporosis drugs are to prevent hip fractures.<sup>1</sup> If five patients are treated with manual therapy one of them will make a clinically significant improvement (“number needed to treat” = 5). Physicians need to prescribe the most effective osteoporosis drugs to over 500 65-year-old patients to prevent one hip fracture per year.<sup>1</sup> If you prefer a cardiovascular example then you will know that to prevent one cardiac death 715 at-risk patients must be treated with lipid-lowering agents for a year.<sup>2</sup> These medical examples are important to place a “1 in 5” success rate for manual therapy in perspective. It is terrific! These data emphasise the importance of the concept of NNT – number needed to treat. If this news about manual therapy surprises you, ask yourself whether you should be participating more closely with experts in manual

therapy. Your patients with back or neck pain will thank you.

## 2. CORTISONE INJECTIONS WORSEN 12 MONTH OUTCOMES COMPARED WITH “WAIT AND SEE”.

Elbow tendinopathy remains a tough condition to treat; cortisone was a treatment for this in the 1980s. Does it still have a place? Professor Bill Vicenzino’s team completed a large, rigorous, highly relevant randomised trial of active physiotherapy (mobilisation and exercises) versus two other relevant conditions – cortisone injection and also “wait and see”.<sup>3</sup> As well as a strong argument for the physiotherapy treatment, this three-pronged study provided a strong case against corticosteroids in medium to long-term outcomes (12 months). After obtaining the typical short-term pain relief that clinicians are very familiar with, the patients who received corticosteroid injections had enormous rates of recurrence and ongoing symptoms. They were worse off than patients who had received “wait and see”. If “first do no harm” is something we hold dear, can we still justify cortisone injection in tennis elbow? What to do in real life with this frustrating condition? Follow the Bissett-Vicenzino plan<sup>3</sup> and keep in mind that nitroglycerin patches combined with exercises provide 30% better success than the previous gold standard – exercise therapy alone.<sup>4</sup> No need to apologise for those results.

## 3. SUDDEN CARDIAC DEATH CAN BE PREVENTED WITH ABC AND AED. BUT YOU HAVE TO HAVE A PLAN.

Historically, survival after sudden cardiac arrest has been low. Many *BJSM* readers

will have had personal connections with someone who has died—those who haven’t will know of well-publicised cases, from Pete Maravich through Hank Gathers and Reggie Lewis, to keep the list short. In the USA, there is a national registry for automatic external defibrillator (AED) use in sports. At the 2nd World Congress for Sports Injury Prevention (<http://www.ostrc.no>) Jon Drezner reported 20 cases with a mean age of 16 years and a range from 14 to 19.<sup>6</sup> The average time from collapse to cardiopulmonary resuscitation was 61 seconds (median 15 s) and the average time from collapse to first shock was just under 3 minutes (median under 2 minutes). Thirteen of 20 patients were successfully resuscitated at the scene of the arrest and 11 survived to hospital discharge. Early defibrillation was associated with a survival benefit in young athletes. These are important new data in this critical area of sports medicine. Jon also commented in the sports and exercise medicine issue of *BMJ*.<sup>6</sup> You can enter the debate relating sudden cardiac arrest in *BJSM*’s 2009 special issue (manuscripts close 31 December 2008) or on the blog at any time.

Speaking of the blog, check out links to useful clinical tools – exercise instruction pages, debate, upcoming theme issues in *BJSM*. There are free knee exam videos – ACSM’s expert clinician Mark Hutchinson shows how it’s done. Tell us what’s important for *BJSM* to cover. It’s your way of being heard simply and rapidly.

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