Hypertension

# US hypertension guidelines in disarray

**Prof Eoin O'Brien**, Professor of Molecular Pharmacology, The Conway Institute, University College Dublin, summarises the debacle around the new blood pressure guidelines issued in December that are putting doctors at odds

In the US the National Heart, Lung and Blood Institute (NHLBI) provides global leadership for a research, training, and education programme to promote the prevention and treatment of heart, lung, and blood diseases and enhance the health of all individuals so that they can live longer and more fulfilling lives.

One of the activities of the NHLBI has been to appoint a Joint National Committee (JNC) to oversee the publication of reports for the prevention, detection, evaluation and treatment of high blood pressure (BP). The first JNC Report was published in 1976, with subsequent Reports published every four-to-six years with the last one, JNC 7, being published in 2003.

### Credibility of JNC 8

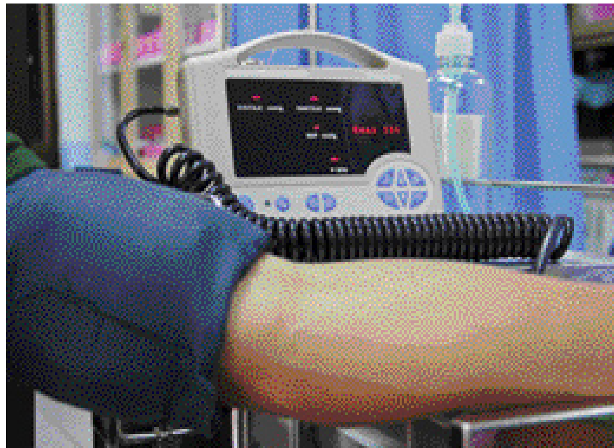
JNC 8 has been long awaited, having been variously dubbed 'JNC-late' and 'JNC-wait'. Well it has arrived, a decade after its predecessor, in the *Journal of the American Association* (*JAMA*), where it has been ushered in by no less than three editorials. But is this JNC 8? Is it the successor to JNC 7?

In an article just published in *Hypertension*, I have highlighted what can be best described as subtle deception by both the authors of the article and indeed by the editors of JAMA.[1]

If we compare the titles and authorship of the JNC 7 report and the so-called JNC 8 report, it becomes apparent that the latter is not all it claims to be and a small disclaimer informs the reader that although NHLBI appointed a panel in 2008 to write JNC 8, it informed the panel in 2013 that it would no longer back publication of the report, thereby removing from the process a body of expert consensus opinion that had given JNC 7 the credibility and authority it exerted on clinical practice for a decade.

However, despite the NHBLI removing its *imprimatur*, the depleted panel "elected to pursue publication independently to bring the recommendations to the public in a timely manner while maintaining the integrity of the predefined process".

How, one has to ask, can the integrity of a predefined process be maintained if that process is no longer in existence? However, by inserting the words 'JNC 8' in the title of the *JAMA* article, both the authors and the editors of *JAMA* wanted readers to assume that this report was in fact JNC 8, which is exactly what has happened with various commentators referring to the paper as 'JNC 8'. To compound matters, five of the 17 authors of the *JAMA* article have now published their disagreement on the all-important stipulation to raise the target systolic BP from 140 to 150mmHg in persons aged 60 years or older. Surely, given the importance of this issue for practice, it would have been more principled for these dissenting authors to withdraw from the entire process?



Pic: boonroong/Getty Images

### Blood pressure measurement

Leaving aside the fact that JNC 8 might now be best described as 'JNC Fake' for the reasons enumerated, one has to ask also how the authors managed to make their recommendations without even mentioning the methodology on which they are based. If the measurement of a marker (and BP is simply a marker) is inaccurate, it follows that recommendations based upon it will be flawed.

There is general agreement that conventional BP measurement as applied in practice is inaccurate and misleading and there is no argument about the importance of white coat hypertension as a cause of unnecessary, wasteful and extremely costly drug treatment in as many as 20 per cent of people diagnosed as being hypertensive with conventional measurement.

However, a practicing doctor (and the *JAMA* report is written for clinical practice) in search of detail on BP measurement will have to go through a 316-page supplement online to find that the previous JNC 7 recommendation (published in 2003) on BP measurement still applies. This effectively means that a decade of research on ambulatory blood pressure management (ABPM) – which attracts some 10,000 publications annually on PubMed – has been completely ignored.

If the technique of conventional measurement was discovered today and submitted for publication, it is unlikely that any editor would consider it worthy of peer review. Or to put this another way: Imagine that the term 'cancer' was substituted for 'hypertension' and one had a biomarker for cancer that had a 20 per cent false-positive rate.[2]

It is hard to believe that one would label all people with the abnormal biomarker as having cancer if simple further testing would clarify the diagnosis. The further simple testing is ABPM and one has to wonder at the intransigence of clinical practice that will countenance referral of patients for an MRI scan of the brain for a knock on the head but will not utilise the technique of ABPM for the diagnosis and management of hypertension.

### Consequences of recommendations

The JNC recommendations on hypertension have influenced the diagnosis and management of hypertension not only in the US, but across the world for nearly 40 years and the publication of the latest report masquerading as 'JNC 8', in which the most serious recommendation is raising the threshold for treatment in elderly hypertensive patients, can only be to the detriment of blood pressure management.

As a commentator in *Time Magazine* put it: "We are concerned that relaxing the recommendations may expose more persons to the problem of inadequately controlled blood pressure."[3] With blood pressure control being achieved in less than 50 per cent of patients on treatment, it is hardly time to raise goal thresholds and the JNC debacle in the US is a sad example of experts failing to provide authoritative guidance to reduce the global cardiovascular burden of poorly-controlled hypertension.

*References:*

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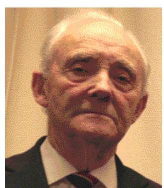
2. Giles, TD. 'Hypertension 101: The place to start.' [Epub ahead of print December 17, 2013]. *J Clin Hypertens* (Greenwich). doi:10.1111/jch.12239. PubMed PMID: 24341910.
3. Sifferlin, A. http-//healthland.time.com/2014/01/13/why-doctors-are-fighting-over-blood-pressure-guidelines/.webloc.

Overweight and obesity

# Taking care of the carbohydrates



Consultant Dermatologist **Dr Charles Dupont** examines some of the not-so-readily-amenable fads on the dietary bandwagon and re-emphasises the role of carbohydrates

Few days pass without this being the subject of newspaper articles or scientific treatises. This is undoubtedly a growing problem attributed to less exercise and consumption of high-calorie foods, particularly of the take-away variety.

Certainly this generation of youngsters seem to be more attached to computer games than performing physical endeavours, like previous generations would.

The emphasis on being thin also has unfortunate side-effects and the 'role model' of skeletal models undoubtedly has led to *anorexia nervosa*, bulimia and other disorders in which weight obsession is a factor.

There are, it is said, more diets than fat people. The dietary bandwagon has been jumped on by huge numbers of 'therapists', many with no qualifications whatsoever.

Despite intense research, the magic pill, which will eliminate appetite without serious side-effects, has not been discovered and this medication is discredited and used much less than formerly.

It is generally accepted that eating less and exercising more are the answer and respectable diets of diminishing fat or carbohydrates are at the top of the list of therapies.

Pic: alexskopje/Getty Images

### Unusual dietary fads

There are, however, unusual dietary fads; in the Hitchcock film *North by Northwest*, the eternally suave Cary Grant asked his secretary did he "look heavy". She looked at him with ill-disguised admiration and said "no". Cary Grant replies, "I feel heavy – put a notice on my desk in the morning – 'think thin'."

At a dinner one evening I was sitting beside an English lady. When the talk of weight loss arose, she had the typical English equanimity of discussing the most minor problems or disasters with the same degree of measured calmness, no doubt treating a nuclear explosion with the same seriousness as her husband running off with the woman next door.

She said, surprisingly, "unrequited love is the best appetite suppressant" – as her husband was sitting a few seats away, she answered my unasked question – "we just didn't require at the same time". Neither of these two methods is readily amenable or indeed likely to be universally successfully.

It is generally accepted that diminishing calories and increasing exercise are vital but the regime must be lifelong and weighing weekly in the same clothes and at the same time of day should be assured monitoring.

Although fats have a higher calorific value than carbohydrates, the late Prof John Yudkin advocated diminishing carbohydrates as the foundation of successful dieting, reasoning after brilliant and continued research work, that if you diminish the carbohydrates, the fats would take care of themselves. He emphasised that carbohydrate ingestion has enormously increased over the past decades and that when a child discovers things taste better when they are sweet, this habit persists.

His unit diet advocated in a book for the lay public *This Slimming Business* backed this up. A recent article in the *British Medical Journal* re-emphasised the role of carbohydrates.

For the unfortunate minority who face a life of misery if their appetites cause them to be grossly obese or persistently hungry, the only solution is bariatric surgery, whose technique no doubt will improve and be less traumatic as time goes on.

It has been stated that dietitians etc 'live off the fat of the land' but this derogatory statement should not diminish the enormous amount of useful work they do.

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