HORMONE TESTING IN HYPOGONADISM

This study aimed to assess the use of hormone testing for the diagnosis and evaluation of hypogonadism and monitoring of testosterone therapy in clinical practice in the USA. It used a retrospective cohort of 63,534 men over the age of 18 years, taken from the Truven Health MarketScan Commercial and Medicare Supplemental Insurance Databases between 2010–2012. All the men had received testosterone therapy (TT) and were enrolled for one year prior to and for six months after TT initiation.

While testosterone was measured at least once in 71% of the men and twice or more in 40%, only 12% of men had luteinising hormone (LH) and/or follicle stimulating hormone (FSH) levels measured prior to the use of TT. Following the initiation of TT, only 46% of men received one or more follow-up testosterone measurements.

The results are extremely worrying. Clearly, some physicians in the USA are not following clinical guidelines with regard to the diagnosis and management of men requiring TT for hypogonadism.

Current recommendations in the UK and from the American Society of Andrology state that total testosterone should be measured at least twice in morning blood samples for a diagnosis of hypogonadism. In addition, gonadotrophins (LH and FSH) should be measured to distinguish between primary and secondary hypogonadism. Sex hormone-binding globulin (SHBG) is helpful and allows estimation of free testosterone. Monitoring should include blood tests three and six months after the initiation of therapy, as well as a haematocrit and PSA measurement.

The bottom line is giving the right treatment to the right patient at the right time. Genuine hypogonadism carries significant morbidity and mortality and needs to be diagnosed and treated. Careful follow-up is essential and this study reminds us of the importance of following national guidelines.

BENEFITS OF LOWER BLOOD PRESSURE

This was a meta-analysis of 123 studies including 613,816 patients published between January 1966 and November 2015. It included the recently published SPRINT trial, which confirmed that achieving a systolic blood pressure target of less than 120mmHg on intensified therapy versus a more relaxed target significantly lowered risks of cardiovascular events and mortality without significantly increasing the risk of renal failure. The meta-analysis showed that blood pressure lowering treatment resulting in risk reduction was proportional to the degree of blood pressure reduction. For every 10mmHg reduction in systolic pressure, there was a relative risk reduction of 20% for major cardiovascular events, 17% for coronary heart disease, 27% for stroke, 28% for heart failure and 13% for all-cause mortality. It also confirmed that this did not have a significant effect on renal failure. The benefit was proportionally greater for patients with diabetes or chronic kidney disease compared to those without these conditions.

It seems likely that these two studies will, in time, change current guidelines. However, we should look more closely at the blood pressure levels we are currently achieving in patients on antihypertensive therapy.