



## **‘International, multi-centre, Post-Authorisation Surveillance Study (IPASS) on the use of Nebido®**

### Study Background

#### **Study Objectives**

This ongoing study is to confirm the established safety profile of Nebido® in daily clinical practice during an observational period corresponding to four injection intervals of testosterone undecanoate. It also aims to assess treatment outcomes in testosterone deficient (hypogonadal) patients treated with Nebido® under real-life conditions and determine continuation rates after 4 injection intervals.<sup>1</sup>

#### **Study Design**

IPASS is a non-interventional, observational, multi-centre, surveillance study on the effectiveness and tolerability of injectable long-acting testosterone undecanoate (TU) (Nebido®). It's the largest worldwide assessment of TU therapy ever and aims to include up to 1500 hypogonadal men from over 25 countries, spanning five continents. Results will be compiled from patient interviews during an observational period of 4 injection intervals spanning up to 12 months and from case report forms assessing routinely-monitored symptoms and treatment outcomes including: sexual desire/libido, vigour and vitality, mood, ability to concentrate, erectile dysfunction (ED), sleep disturbances and hot flushes. Data will also be collected on the components of the metabolic syndrome, including effects on waist circumference, lipids and HbA1c levels. At the final visit, patients will be asked to give a subjective rating on treatment satisfaction, overall tolerability and the effectiveness of the treatment.

#### **Study Participants**

All male patients who are suitable for long-term testosterone therapy and have been newly prescribed Nebido® in accordance with the terms of the marketing authorisation were eligible for study inclusion. Patients with any contraindications for



Nebido<sup>®</sup> were not allowed to be enrolled in the trial. Interim data on 937 men who have received at least one injection of TU are presently available and were included in the interim analysis.

### **Study Results**

Preliminary results show that, in daily clinical practice, the percentage of patients reporting “low” or “very low” levels of sexual desire/libido decreased from 62% at baseline to 11% after four Nebido<sup>®</sup> injections. Similar favourable changes were observed for vigour/vitality, overall mood and ability to concentrate. At baseline, 61% of patients had moderate, severe or extremely severe erectile dysfunction (ED), decreasing to 25% after TU therapy. About half the patients with some degree of ED, who did not receive concomitant PDE5 inhibitor treatment, reported a decrease in severity following TU therapy.<sup>1</sup>

Data from IPASS also showed that 88% of patients were “satisfied” or “very satisfied” with Nebido<sup>®</sup> therapy. TU therapy was well tolerated with an overall incidence of adverse drug reactions (ADRs) of 6 % that were mostly mild-to-moderate in severity. The most common ADRs were injection site pain (1%), increase in prostate-specific antigen, increase in haematocrit and hyperhidrosis (all <1%). To date, no case of prostate cancer has been reported in this ongoing study.<sup>1</sup>

### **Study Conclusions**

These preliminary data from an ongoing study in a worldwide population of hypogonadal men show that injectable long-acting Nebido<sup>®</sup> is well tolerated in daily clinical practice, and confirm and extend previous findings regarding the multiple benefits of this form of androgen therapy. IPASS is scheduled for completion later in 2010.



## About Hypogonadism and Metabolic Syndrome

Studies suggest that hypogonadism in men (also known as testosterone deficiency syndrome) is often under-diagnosed and under-treated; because the symptoms can be easily attributed to aging or other medical causes. It is estimated that low testosterone affects 20% of all men over the age of 60.<sup>2</sup>

The effects of hypogonadism can have a very serious impact on quality of life and cause men to experience diminished sexual desire and erection quality/frequency, changes in mood and decreased cognitive function, decreased lean body mass and muscle volume/strength, increased visceral fat, and decreased bone and mineral density. It has been shown that low testosterone can be associated with the metabolic syndrome,<sup>3</sup> a condition involving a cluster of risk factors for cardiovascular disease including abdominal obesity, high blood pressure; high fasting blood glucose, high triglyceride and low HDL cholesterol levels<sup>4</sup>. Around 20-25 percent of the world's adult populations present a metabolic syndrome and they are twice as likely to die from – and three times as likely to have – a heart attack or stroke than people without a metabolic syndrome.<sup>5</sup> A report has identified a clear relationship between low testosterone levels in men and the metabolic syndrome.<sup>6</sup> Researchers found that men with the metabolic syndrome were 2.8 to 3.2 times more likely to develop hypogonadism, as defined by total testosterone levels less than 11 nmol/L.<sup>7</sup>

## REFERENCES

1. Bayer Schering Pharma: Data on file.
2. Harman et al.: Longitudinal effects of aging on serum total and free testosterone levels in healthy men. *J Clin Endocrinol Metab* 2001; 86: 724-731.
3. Makhsida N, Shah J, Yan G, Fisch H, Shabsigh R. Hypogonadism and metabolic syndrome: implications for testosterone therapy. *J Urol*. 2005;174(3):827-34
4. IDF Worldwide Definition of the Metabolic Syndrome: Frequently asked questions. <http://www.idf.org/home/index.cfm?node=1429>; accessed September 2007
5. Miner MM, Sadosky R. Evolving issues in male hypogonadism: evaluation, management, and related comorbidities. *Cleve Clin J Med*. 2007;74(3):S38-46



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6. Laaksonen DE, Niskanen L, Punnonen K, Nyyssönen K, Tuomainen TP, Valkonen VP, Salonen JT. The metabolic syndrome and smoking in relation to hypogonadism in middle-aged men: a prospective cohort study. *Journal Clin. Endocrinol Metab.* 2005;90(2):712-9.