

## Wetenschap voor Patiënten (Science to patients)

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### Webinar 47: ME and sleep

**Prof. Julia Newton. Broadcast July 15<sup>th</sup> 2014**

#### **What kind of sleep disorders do you find in ME? How can they be dealt with?**

More recently we became interested in sleep in Newcastle, because of a collaboration with colleagues at the University of Northumbria. My colleague Professor Jason Ellis is an expert in sleep medicine. So we've begun to do some studies looking at the quality of sleep and the experience of sleep that patients with ME will have. We have a PhD student Zoë, who's been doing some interviews with patients with ME.

She subsequently looked at some data from a clinic in Holland to look at sleep quality measured by something called polysomnography. She's analysed a large number of sleep diaries from patients coming to the clinic here in the UK. More recently she has begun to do some polysomnography in patients with ME. In terms of results that we have to date, we've recently published a study using the data from the Dutch cohort, where we've been able to show there are four different types of sleep abnormalities in patients with ME.

Essentially, what that's been able to show us, is that there are patients who suffer from a type of insomnia and some patients that suffer from hypersomnia. So not sleeping enough and some patients who sleep a lot. So these four different types of sleep abnormalities or phenotypes are potentially amenable to specific treatments.

In terms of managing the different sleep phenotypes that we've identified in patients with ME, there's still work to be done to try and understand these different types and what the best treatments might be. But sleep experts tell us that there may be treatments available that we can apply to patients with ME. At the moment we're putting together a grant application that would look specifically at treatments targeted at the insomnia in patients with ME.

#### **Which bodily functions are involved in sleep disorders in ME?**

What bodily functions are involved in sleep disorders in ME is an interesting question. What we often find is that there is a relationship between autonomic function and sleep. We know that blood pressure has a circadian rhythm or a biological rhythm throughout 24 hours, and it's at its lowest during sleep. So it may be that there is a strong relationship between sleep function and autonomic dysfunction. Perhaps the two influence each other.

### **How to deal with sleeplessness in ME?**

In terms of managing sleepiness or sleeplessness in patients with ME, in the clinic we describe something called sleep hygiene, where we try and encourage people to think very closely about their sleep pattern.

Encourage them to have regular bed times and wake times and to avoid napping, particularly during the day. Anything beyond that we continue to investigate as a research tool, and at the moment are writing a grant where we hope to look at more specific sleep interventions in patients with ME.

### **What causes extreme sweating at night?**

Patients with ME and fatigue associated chronic diseases will often describe to me in clinic extreme sweating through the night. That's very common. We think it's related to problems of the autonomic nervous system. Particularly as the autonomic nervous system is involved in sweating, and things like your blood pressure are at their lowest through the night. So that clearly is a circadian rhythm of blood pressure and your autonomic nerve system. In some way we think this is related to sleep and sleep quality. Sometimes when people describe problems with sweating that are very symptomatic and profound, we've used evidence from a recent trial of escitalopram in perimenopausal women with some benefit.