

## GREEN TEA EXTRACT

### Information for Doctors



### Efficacy

Green Tea contains epigallocatechin-3-gallate (EGCG).

A cohort study of 25 male patients<sup>1</sup> with wild type transthyretin amyloidosis were prescribed 600mg EGCG for 12 months. N=12/14 patients who were followed by cardiac MRI showed a decrease in left ventricular myocardial mass by 5.9%. N= 2/14 had an increase in myocardial mass. Although by assessment using transthoracic echocardiogram the *mean IVSd* (intraventricular septal diameter) remained unchanged, in 33% there was an increase in wall thickness. For the whole group, median NTproBNP levels remained stable.

### Side effects

EGCG may cause insomnia. It may decrease the efficacy of bortezomib (used to treat AL amyloidosis).

Green tea can cause liver function derangement<sup>2</sup>. There are case reports of liver failure. This can happen at any time during EGCG use.

### Dosing

It is important to know the amount of EGCG (the active component of green tea) in each formulation and to not to exceed the studied amount of 600mg/day as the potential for liver damage is higher as the dose increases.

There are many different brands of green tea extract (or EGCG) available and we suggest Teavigo (150mg tablets), Fusion (187mg tablets) and Biovea (350mg tablets). These are over the counter therapies and can be found on the internet.

We suggest splitting the mane and midi dosing on an empty stomach. This dosing schedule is suggested as some patients experience insomnia when taking 600mg all in one go or if a dose is taken in the evening. Efficacy may decrease if taken with food.

### Surveillance for side effects

We suggest 3 monthly liver function testing whilst on therapy.

### References

1. aus dem Siepen F, Green tea extract as a treatment for patients with wild-type transthyretin amyloidosis: an observational study. *Drug Design, Development and Therapy* 2015;9 6319-6325
2. Doatal AM et al, The safety of green tea extract supplementation in postmenopausal women at risk for breast cancer: results of the Minnesota Green Tea Trial. *Food Chem Toxicol.* 2015 Sep; 83: 26-35