CLINICAL STUDIES

PAINLESS

STUDY 1 Developing a predictive tool for cancer pain

Predictive analytics based on the following data

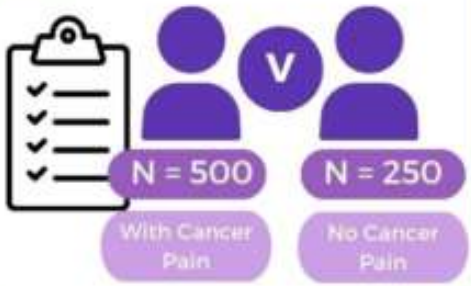
1. **Clinical History:** Comorbidities, tumour type, chronic diseases, sociodemographic & lifestyle information
2. **Clinical Assessment:** Pain intensity, distress, fatigue, sleep quality, quality of life
3. **Pain Biomarkers** Pain threshold, conditioned pain modulation, EEG, temporal summation & contact heat evoked potentials

Testing Period: Baseline - 6 months - 12 months

Characterising & stratifying patients with cancer pain STUDY 2

Assessing based on clinical variables & pain biomarkers by examining

1. **Sensitivity & Specificity** of pain biomakers to characterise cancer pain
2. **Profiles** of patients with cancer pain
3. **Database** of pain biomarkers



Using machine learning & clustering analyses

STUDY 3 Piloting home-based tES for addressing cancer pain

Transcranial Electric Stimulation **tES**

15 Sessions incl. remote monitoring, daily assessment

Comparison of home-based tES between three groups

1. Active transcranial direct current stimulation **n = 200**
2. Active transcranial alternating current stimulation **n = 200**
3. 'Sham' transcranial electric stimulation **n= 50**

Comparison of cost-effectiveness between home-based tES and traditional pain management

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