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Coordinator: INSTITUTO DE BIOMECANICA DE VALENCIA

Project participants: 13

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Genos contribution: 554,021.56€



Back-up

Personalised Prognostic Models to Improve Well-being and Return to Work After Neck and Low Back Pain

Neck and Low Back Pain is a leading cause for years lived with disability in Europe and worldwide. About 70% of all adults experience this problem at some point in their lives, and both conditions are among the top ten in terms of overall disease burden expressed as disability adjusted life years.

Moreover, low back pain is the leading cause work absence in Europe, and it causes an enormous burden on individuals, industry and governments.

Most patients ($\geq 85\%$) seen in primary care with neck or low back problems have non-specific pain i.e., pain that cannot reliably be attributed to a specific disease or pathology. Many patients are therefore left with relatively few treatment options to effectively manage it.

Current European treatment guidelines recommend a package of care, which includes many different interventions shown to be small to moderately effective, such as self-management education, pain relief, encouragement of physical activity and return to work, a supervised exercise programme and manual therapies. A key aspect to consider is that patients with neck and low back pain are a heterogeneous group where the prognosis and precise mix of factors involved, varies substantially between individuals. This means that a one-size fits-all approach is not recommended, but methods to tailor treatment to the needs of the individual are still relatively under-developed.

The Back-UP Project works for a better, personalised, faster and evidence-based management of neck and low back pain, through the development of a technological platform with prognostic models, addressed to patients, clinicians and occupational managers, based on the digital representation of multidimensional clinical information, and in-silico assessments of possible interventions.