

## **PCL/22/07 – Defining The Prevalence Of Adverse Host Characteristics And Their Influence On Prehabilitation Response.**

Complications after surgery to remove cancers of the digestive system are common and can result in significant additional strain on patients, their families and the health service. Recent studies of exercise programmes before surgery have suggested improved fitness may reduce complications. A large UK study examining this is in progress.

Patients with low muscle quantity and quality, excess body fat and high levels of inflammation in their blood have higher complication rates after surgery, slower recovery and poorer survival. Patients with these features can be identified using scans and blood tests performed as part of the investigation of cancer.

Studies of exercise programmes have not looked at the influence of muscle quality and quantity or inflammation on fitness or complications. Using the scan and blood results from patients in these studies, we will assess whether the muscle and inflammatory features could be used to identify patients who may not benefit from standard exercise and need a more personalised approach. Following this, we wish to study simple ways of measuring muscle function and estimating fitness for surgery. This would mean specialist assessment of scans and bloods could be replaced by more simple measures that could be performed routinely in clinic.