

A platform to identify patients for cancer vaccine trials: The NHS England Cancer Vaccine Launch Pad (CVLP).

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Background: The Cancer Vaccine Launch Pad (CVLP) was established in September 2023 to establish a process to increase the number of patients identified as potentially eligible for cancer vaccine trials and supporting processes for accompanying tumour tissue processing. Increasing the available patient population by referring from wider geographical regions also increases representation from groups who may otherwise not have the opportunity to take part in cancer vaccine research trials. The CVLP is a collaborative project including NHS England, Genomics England, the Department of Health and Social Care, the Office for Life Sciences and the National Institute of Health and Care Research (NIHR) which is being delivered by the Cancer Research UK Southampton Clinical Trials Unit. The CVLP has been designed as a company and trial agnostic platform which can accommodate multiple cancer vaccine trials in multiple cancer types. **Methods:** The CVLP aims to rapidly identify large numbers of cancer patients who could be eligible for trials to expedite evidence for the efficacy of vaccines across multiple types of cancer. To support the identification of participants their tissue samples are processed by a standardised, high quality, expanded pathway, incorporating elements of the NHS Genomic Medicine Service. The primary objective of the CVLP is to determine whether it is feasible to recruit cancer patients to a platform to be matched to available cancer vaccine trials, whether there is capacity for tumour samples to be analysed within a suitable time frame and if this results in acceptable participation in cancer vaccine clinical trials. Eligibility criteria are determined according to the needs of the trial that patients will be referred on to. The CVLP pathway from patient identification to entry into available clinical trials has been developed to include the following steps; i) patients identified by the clinical team managing their care and consented into CVLP; ii) blood and tissue samples (during surgery) collected; iii) samples sent to Cellular Pathology Genomic Centre and Genomic Laboratory Labs; iv) eligibility assessment which allows the clinical liaison team to pair patients with available research trials. Sponsored by NHS England the first trial incorporated within the CVLP is BioNTech BNT122-01 (NCT04486378) investigating the RO7198457 mRNA vaccine in patients with ctDNA-positive, resected Stage II/III colorectal cancer which reached approximately 60% of patients undergoing colorectal surgery via the CVLP from 55 sites across England. To facilitate screening to the cancer vaccine trial 96.4% of tissue samples were prepared in the required time frame for testing (average 2.5 days) providing proof of principal for this pathway and paving the way for the onboarding of further trials. Clinical trial information: ISRCTN13053675. Research Sponsor: NHS England.