

ACP-2021-002: BVLOS UAS Operations - extension request

Dear Stakeholder,

We would be grateful for your support for an extension to ACP-2021-002 which currently expires on 5 July 2022.

First of all, thank you to all those who have helped us research the value of delivering chemotherapy by drone to cancer patients. Apian is a medical drone startup founded by NHS doctors with support from the NHS Clinical Entrepreneur Programme. We work on behalf of the NHS to operationalise drone technology and research the impact it has on patient health outcomes and staff wellbeing.

We have activated the TDA for the first time this week (27th June) in anticipation of flight trials to St Mary's Hospital on the Isle of Wight. We will be optimising the remaining TDA period up to the 5th July, and have increased resources within the project by onboarding an additional drone operator to do so. However, even with this additional support, we are unlikely to complete the required 90 flights within the current timelines and as a result, we are seeking your support for an extension to our TDA. We will be asking for a 60 day extension from the 22nd Sept, to allow us to complete the remaining flights (max of 90 flights in total). All aspects of the current TDA will remain the same.

Given the AIC cycle, the next available start date is 22nd Sept. This requires us to begin our formal application to the CAA for an extension to ACP-2021-002 by 14 July. Before we do so, we wanted to update you and ask for your support. Would you kindly let us know if we have it? Please call or email me directly. I'm happy to answer any questions and can arrange a briefing if you prefer. I am at your service.

Attached is a letter from the Chief Pharmacist of Isle of Wight NHS Trust explaining why this work is so important and thanking you for your support of it.

Yours gratefully,



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To whom it may concern,

Support for Isle of Wight NHS Trust and partners to complete research of chemotherapy delivery by Drone

For the past year, together with colleagues at Portsmouth University Hospitals NHS Trust, we've been researching the potential benefits of using drones to deliver chemotherapy and are finally in position to carry out the actual flights across the Solent to test the vibration impact on medicines in their real-world environment.

To ensure patient safety, we must gather enough evidence over a suitable period of time. We need 2 months of concurrent operations to achieve this. The TDA (temporary danger area) expires on 23 November, we request an extension to the TDA to ensure that we have enough time to carry out extensive testing on the most commonly used monoclonal antibody drugs. Without an extension to the TDA we can only certify a small fraction of the most commonly used monoclonal antibody drugs. A period of less than 2 months will reduce the number of data points gathered to 1 month, in most instances this is unhelpful for trend analysis. Therefore 2 months will provide enough operational procedure validation, spanning several staff shift variations, which is necessary for pharmacy team resource consideration. It will also provide more opportunities for Air Ambulance/HM Coastguard procedure integration and allow us to better determine the long-term economic sustainability of a drone delivery service.

Although there are now several published articles regarding the transport of drugs in drones, none demonstrate what the effect of this new mode of transport has on the stability of chemotherapy and immunotherapy products. In the month of October 2021, we transported via hovercraft a combination of over 200 chemotherapy and immunotherapies. It is therefore of vital importance that we have enough time to complete stability studies of these products by drone. An extension will ensure we secure robust scientific evidence.

Moving items by drone across the Solent can ensure we receive a great range of prescribed chemotherapy drugs in a more timely and efficient manner. The Pharmacy Department and the wider Isle of Wight NHS Trust are extremely grateful to you for the part you play in helping us best serve our patients.

Yours sincerely

Mr Thomas E H Cox
Chief Pharmacist and Associate Director Medicines Optimisation