

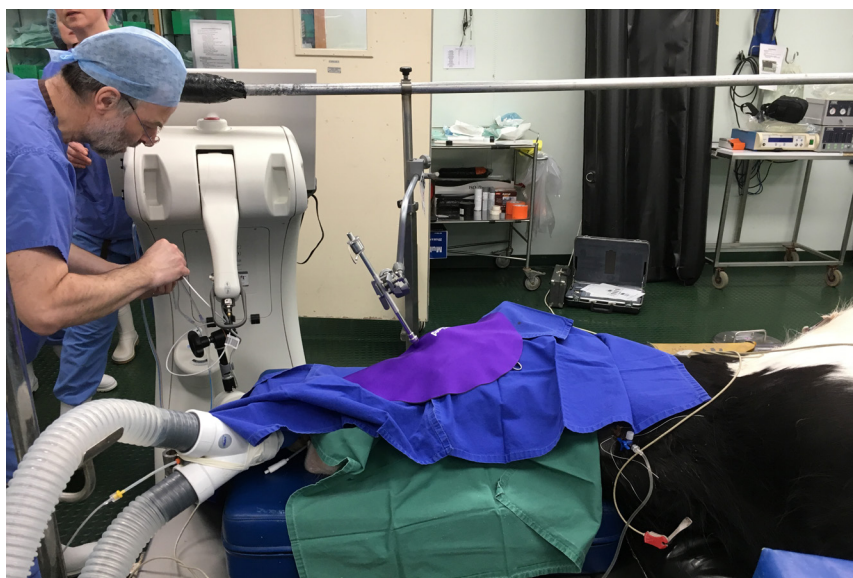


First equine patients in the UK successfully treated with Electronic Brachytherapy at the University of Liverpool Equine Hospital, Leahurst

UNIVERSITY of Liverpool Equine Hospital becomes the first in the UK to offer radiotherapy to its equine patients using the Xoft Axxent Electronic Brachytherapy system provided by Oncotherapy Resources Ltd. The Equine Hospital of the University of Liverpool at Leahurst provides world-leading, evidence-based care to horses presenting with a vast range of signs and conditions and is now leading the way with this innovative technology for the treatment of equine tumours in the UK. Two patients have received radiotherapy treatment for sarcoid tumours thus far with very promising results.

Horses, like humans, are at risk of developing skin cancer as they spend too much time in the sun. Skin cancer accounts for nearly 50 percent of all equine cancers. The 3 most frequently encountered superficial tumours in horses are sarcoids, squamous cell carcinomas and melanomas, which up until recently have been treated most frequently with surgical excision, chemotherapy (drugs and creams) and cryotherapy. Brachytherapy, a form of radiotherapy is now being successfully employed to treat equine tumours. Historically brachytherapy has been performed by placing radioactive nucleotides (in most cases iridium wires or seeds) on, or within, the tumour.

Xoft Axxent eBx system



Above: In-theatre treatment set-up with the Xoft Axxent system.

This method exposes the clinician to radiation during source implantation and exposes the patient's caretakers to radiation while the source is in place therefore, use of iridium wires is no longer an acceptable treatment option.

Electronic brachytherapy is a newer form of brachytherapy that delivers radiation into the tumour body via a miniaturised x-ray source placed into an applicator.

It is positioned onto the skin or within a tumour cavity to rapidly deliver high doses of radiation to target tissues with excellent results.

The team at the University of Liverpool Equine Hospital have initially started treating selected patients with superficial sarcoid tumours and will soon be investigating the use of specially designed 'interstitial' catheters which allow deeper seated tumours to be treated.

The Xoft AXXENT System is being used by veterinarians in several hospitals in the USA, including the Colorado State University Veterinary Teaching

Hospital and the New England Equine Practice in Patterson, USA. A recent published case study by Bradley et al reported positive outcomes of 3 horses with ocular lymphoma, sarcoid and melanoma treated with the Xoft Axxent System. The treatment proved to be very successful with no recurrences at twenty-two months post treatment. It was concluded by the team of authors - Bradley et al. (2015) that this "form of brachytherapy contains inherent advantages over previously used forms of brachytherapy and provides another treatment option for equine tumours that cannot be treated with, or do not respond to, conventional tumour therapies."

"Electronic brachytherapy has been developed as a universal application for convenient and effective treatment options. Thanks to its adaptive hardware it's not surprising to see the Xoft system being brought into equine hospitals and being so well received. With promising results from first use, I look forward to seeing more from this innovative treatment system." Sarah Williams, Therapy Radiographer.



Above: Sarcoid tumour treatment set-up using Xoft surface applicators

Below left: Sarcoid tumour on presentation

Below right: Sarcoid tumour post-excision in preparation for treatment.



The University of Liverpool Equine Hospital, Leahurst

The University of Liverpool Equine Hospital is an RCVS tier 3 teaching hospital with a worldrenowned clinical team and state-of-the-art facilities, based on the University of Liverpool's Leahurst Campus on the Wirral. We have specialists in all disciplines of equine health care and are one of the few UK equine hospitals to have a dedicated team of highly qualified specialist anaesthetists. <https://www.liverpool.ac.uk/equine/>

Oncotherapy Resources Ltd (ORL) – an Xstrahl Group company

ORL are the UK distributor for the Xoft® Axxent System and the providers of managed Intraoperative radiotherapy services aiming to improve access for patients. ORL aims to improve access to innovative radiotherapy solutions such as the Xoft Axxent system for veterinary hospitals throughout the UK.

Xoft

The Xoft® System is FDA cleared, CE marked and licensed in a growing number of countries including the UK for the treatment of cancer. ^{i,ii} Xoft® System is a simple-to-use, portable electronic brachytherapy device, which utilises a disposable miniature x-ray tube (50kV). Minimal radiation shielding is required, avoiding the need to adjust operating theatres and enabling medical personnel to remain with the patient during treatment.

References:

Bradley W.M., Schlipp D., Khatibsadeh S.M., 2015. Electronic brachytherapy used for the successful treatment of three different types of equine tumours. *Equine veterinary education*.

Veterinary Teaching Hospital, Colorado State University. 2013. *Tackling Cancer a Layer at a Time*. [online] Available at: <http://csu-cvmb.colostate.edu/vth/Pages/tackling-cancer-a-layer-at-a-time.aspx>. [Accessed 10 April 2017].

i U.S. Food and Drugs Administration. Tab 5 510 (k) Summary k090914. July 2009. Available at: http://www.accessdata.fda.gov/cdrh_docs/pdf9/k090914.pdf. Last accessed 10 March 2016.

ii Medical Devices Safety Service. Certificate of CE Marking for Xoft Inc. 2 December 2011. Available on request.