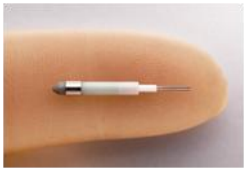
EBX - Taking brachytherapy from behind closed doors.

The field of HDR brachytherapy has had little new and exciting to shout about over the last 20 or so years, but has been happily plodding along the pit ponies of the radiation therapy department. Recent developments in the area of 50 Kv electrically activated X-Ray radiation brachytherapy however look about to give this closeted little world a bit of a shake up.

Although electronic brachytherapy is a relatively new gun in the armoury of radiation therapists new applications and delivery methods are being devised at a rate of knots. Probably the most flexible system on the market today is *Xoft electronic brachytherapy which is the only system to offer a hybrid solution to classic brachytherapy and IORT.



The Xoft ebx system is a leading-edge technology that utilizes a proprietary miniaturized X-ray source to apply radiation directly to a tumour bed within the body. It mimics certain characteristics of the most common HDR brachytherapy isotope 192Ir but with low energy output and no difficult to handle Isotopes.

As a result Xoft can be used as IORT anywhere in the body as well as accelerated partial breast irradiation (APBI) in the treatment of early-stage breast cancer, and many other traditional HDR brachy procedures i.e. endometrial cancer , skin cancer, rectal cancer, and from 2012 cervical cancer and for irradiation treatment in. The flexible base technology also lends itself to new application development with an aggressive R& D and engineering department ready to explore new ideas e.g. oesophageal, spine, prostate bed etc

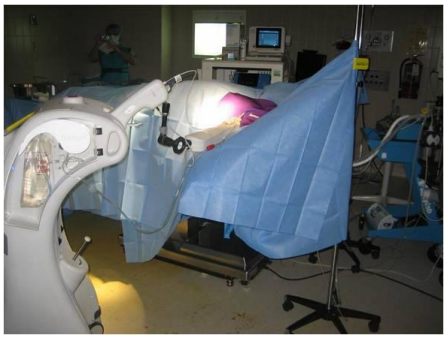
The unique combination of high dose rate and low energy radiation offered by this new class of brachytherapy products means that brachy procedures can be performed under the auspices of a radiation therapist, with only minimal shielding, anywhere in the hospital. Or indeed in the case of the new mobile systems like Xoft can even be taken outside of existing brachytherapy centres.

Such mobility and flexibility offers a revolutionary advancement in the field of radiation therapy by

actually taking the service to the people rather than patients travelling sometimes for hours to attend one of less than 50 brachytherapy centres in the UK. This in turn is likely to improve patient outcomes as research has shown that proximity to treatment centres correlates with patient acceptance and adherence to radiation therapy protocols.

As a further shake up recent results of the Targit trial is showing equivalency of a single dose of brachytherapy at the time of lumpectomy to standard fractionated APBI. So once again the role of a mobile flexible system which is just as comfortable in standard operating theatres as it is in the radiation suite is a huge step forward in offering state of the art treatment across the UK.

The Xoft system is currently CE marked and FDA approved for IORT treatment anywhere in the body which allow for clinical applications in any oncological surgery where a dose of radiation at time of surgery to would be deemed advisable.eg potential positive margins. This promises to makes it a key component in any operating theatre where oncology surgeons are in action.



Taking brachytherapy from behind closed doors will however have certain consequences for radiation personnel....

The issue of sunglasses and a tube of sun-cream to both physicists and radiation therapists is highly recommended.!!!

**Xoft Electronic brachytherapy systems are manufactured in Silicon Valley and is the market leader in electronic brachytherapy in the USA having around 70 active centres. In Europe it is distributed through Pergentium Ltd. The first reference centres in Europe. (Germany & Portugal) are going live at the end of this month and Italy and France planned for January. Reference centres for the UK are actively being sought. For further info contact: hmurphyhunt@pergentium.com.*