

## Alder Hey and Karl Storz collaborate on pioneering surgical innovations

On 10th December 2014, representatives from Alder Hey Children's Foundation Trust and **KARL STORZ** Endoscopy (UK) Ltd met to sign a collaboration agreement. The agreement establishes a relationship with the Innovation Hub at Alder Hey Hospital, designed for the development of technologies associated with minimally invasive 'keyhole' surgery, pre-operative planning and particularly the demanding requirements of surgery on children.

KARL STORZ has gifted some of the most advanced surgical equipment, including a new 3D simulation suite with the latest 3D modelling software.

The collaboration gives the hospital's clinical experts the opportunity to both experience the new resources and work with the technical expertise KARL STORZ offers to help shape the emerging technologies and techniques that will place Alder Hey at the global forefront of paediatric surgical development. The centre will form part of the new 'Alder Hey in the Park' hospital, due for completion in 2015.



From left to right: Mr Rick Turnock, acting medical director, Alder Hey Children's Hospital; Mr Steve Eames, head of marketing, KARL STORZ Endoscopy (UK) Ltd; Louise Shepherd, chief executive, Alder Hey Children's Hospital; Mr Iain Hennessey, consultant paediatric surgeon, Alder Hey Children's Hospital

## Real-time PCR kit for Ebola

**FAST-TRACK DIAGNOSTICS** has released a CE labelled real-time PCR kit for the detection of the Zaire Ebola virus – the strain responsible for the current outbreak in West Africa. The Ebola virus assay is based on multiplex Real-time PCR so clinicians can deliver fast, accurate diagnoses leading to greater efficiency in the treatment of patients.

Fast-track diagnostics has a wide range

of kits available for over 100 different pathogens – including viruses, bacteria, fungi and parasites – many in multiplex syndrome panel format for commonly faced conditions including respiratory infections, gastroenteritis, meningitis and infections of the immunosuppressed. The entire range is compatible with many standard laboratory real-time PCR cyclers and extraction methods.

## Fast diagnosis of infections

**ABBOTT** has announced its innovative diagnostic platform, known as IRIDICA, is now available in Europe and other CE-Mark recognised countries. The new platform can identify more than 1,000 infection-causing pathogens in less than six hours, versus the current standard of care (culture-based testing), which can take days. By identifying the cause of infections – such as bacteria, viruses or fungi – sooner, doctors can improve care for the critically ill.

"Doctors need better tools to diagnose people with serious infections," said Professor François Simon, M.D., Ph.D., chief of microbiology at Hôpital Saint-Louis, Paris, France. "For those with sepsis, the survival rate decreases each hour treatment is delayed. Often it is because current tools cannot identify the source of infection in time for doctors to treat with the appropriate therapies."

IRIDICA uses a combination of

sophisticated testing technologies known as Polymerase Chain Reaction/Electrospray Ionisation Mass Spectrometry (PCR/ESI-MS) to rapidly identify infection-causing pathogens directly from a patient's sample, without the need for culture. According to Abbott's Rapid Diagnosis of Infections in the Critically Ill (RADICAL) study results, the technology was able to detect pathogens when the current standard of care did not.

In the study, after retrospectively comparing the results of Abbott's technology versus culture, an independent panel of physicians reported it would have prescribed a different course of treatment in nearly 60% of cases evaluated. Additionally, analysis of the study results suggested that Abbott's technology could help lower associated healthcare costs by 30% and reduce hospital stays for people with serious infections by up to eight days.

## Antimicrobial silver dressing

**SYNER-MED's** Zonis is an antimicrobial silver dressing with a polyurethane foam backing which retains exudate. It is designed to be placed directly over the exit site of all vascular and non-vascular percutaneous medical devices (PMD). Zonis contains silver in ionic form with bonded water and does not need activation by saline or water.

The silver alginate matrix delivers ionic silver directly to the catheter exit site and surrounding area to reduce bacterial colonisation, while the polyurethane foam backing draws potentially harmful exudate away from the insertion site. Zonis creates a zone of microbial inhibition up to 10mm beyond the patch edge and there have been no reports of hypersensitive or anaphylactic reactions.

The small Zonis disc is secured by a secondary transparent barrier and may be left in place for up to a week, or until it is saturated with wound exudate. It is easy to apply and easy to remove as the calcium alginate ensures that the product is slightly tacky to the touch, yet is non-adherent.



## An alternative to lead hands

**SURGICAL HOLDINGS** is now offering two alternatives to the traditional lead hands for hand immobilisation – the Durahand, which is a reusable aluminium with a poly coating and a disposable, single-use sterile version, which is aluminium and blue foam coated.

Both come in two sizes. According to the company, they both have benefits over using lead, with the Durahand lasting just as long and being easier to dispose of than the traditional lead hand.

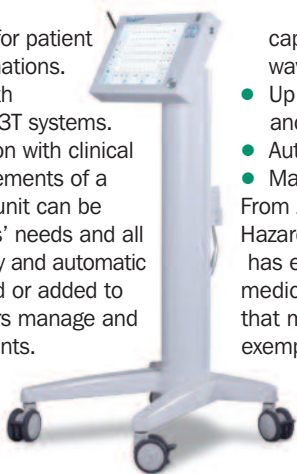


## Patient monitoring during MRI

The M3 has been developed for patient monitoring during MRI examinations. The unit is suitable for use with scanners up to and including 3T systems. It was developed in conjunction with clinical users and fulfils all the requirements of a modern patient monitor. The unit can be configured to meet customers' needs and all components (e.g. capnography and automatic gas analysis) can be upgraded or added to at any time, helping customers manage and plan their financial commitments.

The M3 provides:

- Wireless ECG and pulse oximetry.
- 15in colour touch screen,



capable of displaying up to six waveforms at one time.

- Up to two channels each of IBP and temperature.
- Automatic gas analysis.
- Mains or battery operated.

From July 2014 the Restriction of Hazardous Substances (RoHS 2) has encompassed the area of medical devices, which means that medical devices previously exempt must now comply with RoHS 2.

**WARDRAY PREMISE** reports that the M3 is fully compliant with this latest legislation.

## Copper clothing tackles bacteria

**COPPER CLOTHING** develops, manufactures and markets innovative Cu fabrics. The fabrics include cotton bamboo, nylon, rayon, as well as a non-woven copper infused material (disposable).

The materials have been designed to attract bacteria to the fibres of the fabric on the skin side, to be carried through to the outer side of the fabric and rapidly destroyed within a few hours. The non-woven materials cost little more than standard materials and are designed

to proliferate wound healing and stop the onset of any skin pathology.

The company's testing has shown that EMRSA, Klebsiella Pneumonia as well as Candida are rapidly destroyed. Copper infused fabrics have achieved a >6.7 log reduction using a NHS clean gown as a control.

Cu pyjamas are suitable for the protection of compromised skin or those whom are immunosuppressed, or already have a skin infection.

## Pre-warming to improve patient outcomes

Actively pre-warming patients before surgery has been shown to reduce the effect of redistribution temperature drop, maintain normothermia and improve patient outcomes by reducing postoperative shivering and aid in the reduction of postoperative wound infection. Pre-warming has also been shown to reduce length of stay in the recovery room and reduce the cost of anaesthesia.

The **3M Bair Paws System** uses Bair Hugger therapy to provide both preoperative warming, that will contribute to increasing body heat content, as well as perioperative clinical warming for many surgical procedures. With only a minimum of 10 to 20 minutes of pre-warming required, The Bair Paws system offers an easy method of ensuring patients are provided with a high standard of care, while assisting in reducing the adverse effects of inadvertent perioperative hypothermia.

## Fluid warming system

Even mild hypothermia can increase post-anaesthesia recovery time, blood loss and morbid cardiac outcomes and lengthen hospital stays. Maintaining normothermia should include the use of warm irrigation fluid for surgical procedures as part of the holistic approach to keeping the patient warm. NICE guidelines state that fluids should be warmed to 37°C. However, how many operating teams check the temperature of the fluid leaving the warming cabinet and can be sure of the exact temperature of the fluid being used to irrigate the patient?

A recent survey carried out by **ECOLAB HEALTHCARE** at the AfPP conference in York, identified that out of 28 participants, only 12 % were able to correctly 'guess' the temperature of the warmed irrigation fluid, when using the traditional 'finger dip' test. Not knowing the exact temperature of the irrigation fluid at point of use can jeopardise patient safety. Irrigation with hot solutions has resulted in patient injuries and fluid temperature drops by 1°C per minute after removal from a warming cabinet.

The new Intratemp Fluid Warming System prevents this risk by taking the guesswork out of irrigation fluid temperatures.



## Meeting water quality guidelines

Spire Sussex Hospital is a private hospital delivering a range of services to patients in and around Hastings, East Sussex. Linda Waghorne, theatre and radiology manager at Spire Sussex Hospital explained how their existing automated endoscope reprocessor (AER) had reached the end of its working life and so had to be replaced. Existing AER supplier, **WASSENBURG**, was chosen for its latest model the WD440 top loader.

To meet the new CfPP01-06 guidelines and due to the age of the existing filtration system, the hospital decided it also needed to install a reverse osmosis (RO) system. For

this Wassenburg recommended using ENVIRONMENTAL WATER SYSTEMS (EWS), part of the Envirogen Group. Having previously worked with EWS, a Wassenburg spokesperson explained: "We felt the EndoTherm Mini was the ideal product to meet the hospitals needs, with the small footprint, excellent water quality production and support service, it was best placed to meet the RO water requirements."

He added: "The automatic thermal disinfection cycle programmed into the EndoTherm Mini will ensure consistently good TVC quality is achieved."

## Single patient use tourniquet

The Tournistrip single patient use tourniquet is easy to tension, offers single handed release and removal, and can also be easily repositioned and retightened on the same patient. Two Tournistrips may be joined together for larger arms or bariatric patients, while a specialist paediatric version is also available. The product, which is available from **ISKUS HEALTH**, has been evaluated to facilitate ANTT compliance with IV access procedures.

