EOUIPMENT GUIDE

Neonatal jaundice: a guide to the latest equipment

When a neonate has increased levels of bilirubin in the blood, the cause of the conjugated or unconjugated hyperbilirubinaemia is either physiological, which is typically mild and transient, or pathological, which is more severe with underlying medical or surgical epiology. Treatment will be needed in order to bring levels back to normal. Currently, treatment is by phototherapy blankets that the baby lies on top of, or by overhead lights placed over the cot. As well as the diagnostic serum bilirubin blood sampling tests, more companies are now designing non-invasive testing for raised jaundice levels. In this issue of *Infant Journal*, we look at the latest products designed to detect and treat neonatal hyperbilirubinaemia.

The **BiliSoft 2.0 Phototherapy System** helps provide family-centered care virtually anywhere, in the NICU, paediatric units and even at home. The right touch and blue light can make all the difference for infants with jaundice. GE HealthCare's BiliSoft 2.0 Phototherapy System meets or exceeds the American Academy of Pediatrics guidelines for intensive phototherapy to effectively treat hyperbilirubinemia and support patients with more comfort, better bonding and higher quality developmental care.

With BiliSoft 2.0, there is no barrier to bonding between infant and parents or caregivers. The baby can be held and fed while receiving phototherapy, promoting a healing environment without interrupting the benefits of kangaroo care.

GE HealthCare's BiliSoft 2.0 Phototherapy System is suitable for use on the neonatal unit and at home with training.







Left: The BiliCocoon Nest System is ideal for preterm babies.

Below: The Weyer Bilicompact LED's lights go out after therapy is complete.

Central Medical Supplies provides trusted solutions for neonatal jaundice. BiliCocoon is designed to deliver safe, controlled phototherapy in hospitals or the community. BiliCocoon allows physical contact while a baby is undergoing essential light treatment, enabling feeding and comfort from the mother during use. It features a lightweight, portable light box connected to LED light pads that wrap around the infant. Two different versions are available: the BiliCocoon Bag System, enabling 360° body surface coverage, and the BiliCocoon Nest System, ideal for preterm babies. The Weyer Bilicompact LED overhead phototherapy lamp uses both blue and white light. It can be operated in manual and automatic modes, providing flexible therapy along with adjustable intensity levels. Weyer Bilicompact LED can be used on a stand or sitting on top of an incubator. Central Medical Supplies also supplies a range of jaundice and light meters, along with eye protectors.

QED Scientific has partnered with Okuman to exclusively supply their range of neonatal phototherapy lamps in the UK. Of the two lamps available, the BC050 mobile overhead unit offers great flexibility in use. With its 32 LED lamps having the wavelength optimised at 458nm it is probably the fastest of its

type, QED says. A colour touchscreen allows users to access all parameters and power output as well as treatment time. The head unit is detachable so that it can be sited directly on the top of an incubator, taking up less space than the height adjustable stand and allowing for use during transfers between units.

The 360° tunnel phototherapy unit (BC350LCD) allows intensive treatment of hyperbilirubinaemia patients. It has an advanced 5" colour touch-screen controller that shows all parameter settings. Since the LEDs are all around the baby, light intensity is greater and treat-ment time shorter. Although the treatment LEDs run 'cool,' the top half of the tunnel will automatically raise in case of overheating. The baby is placed in a pull-out hammock, while darkened windows reduce light scatter yet allow nursing supervision without disturbing the infant.



The BC050 (top) and BC350LCD phototherapy lamps.

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BiliTex enables phototherapy treatment while the infant maintains optimal positioning.

Designed for security and stability, Inspiration's **BiliTex** positioning aid has been specifically developed for phototherapy. During therapeutic phototherapy infants are prone to making spontaneous movements due to lack of muscle tone and the unbounded surroundings. This expends a lot of energy. With the Bilitex phototherapy wrap infants experience a secure and flexible environment during therapy, which allows them to adopt a relaxed position. The textile material features a special mesh structure with 85 per cent permeability to the high intensity radiation spectrum. In addition, the knit fabric is very soft, thermostatic and breathable. It is available in five sizes: S 800g-1,200g, L > 1,200g-2,000g, XL > 2,000g-3,000g and XXL >3,000g.

The Draeger BiliLux is a compact and lightweight LED phototherapy system for the treatment of neonatal unconjugated hyperbilirubinaemia. It provides superior phototherapy performance, individualised therapy with electronic documentation capabilities and the flexibility for seamless integration into practically every workplace. St Mary's Hospital in London was the first hospital to use the BiliLux LED phototherapy light system.



The compact size of the BiliLux system saves space at the cotside and makes it suitable for use by transport teams.

Delta Medical's MBJ20 transcutaneous jaundice meter has been increasingly successful, with growing uptake in the NHS. Feedback from clinical users is that the device is simple to use and allows readings to be taken quickly, with the same accuracy as other jaundice meters used in the past. They appreciate the ease with which they can check calibration in seconds, for reassurance when needed. Portability is enhanced by a robust, compact carrying case, and the use of standard AA batteries, which remove the need for charging stations. Delta Medical says the lower cost of its jaundice meter compared to the most widely used product in the NHS over past years delivers cost savings in the region of 50%.

The handheld transcutaneous bilirubin meter allows quick non-invasive readings.

The Infant Supplier Guide provides a searchable database of equipment used for the care of sick and premature infants. Visit: www.infantjournal.co.uk/supplierguide.html



