

# Cerebral function monitoring on neonatal transport

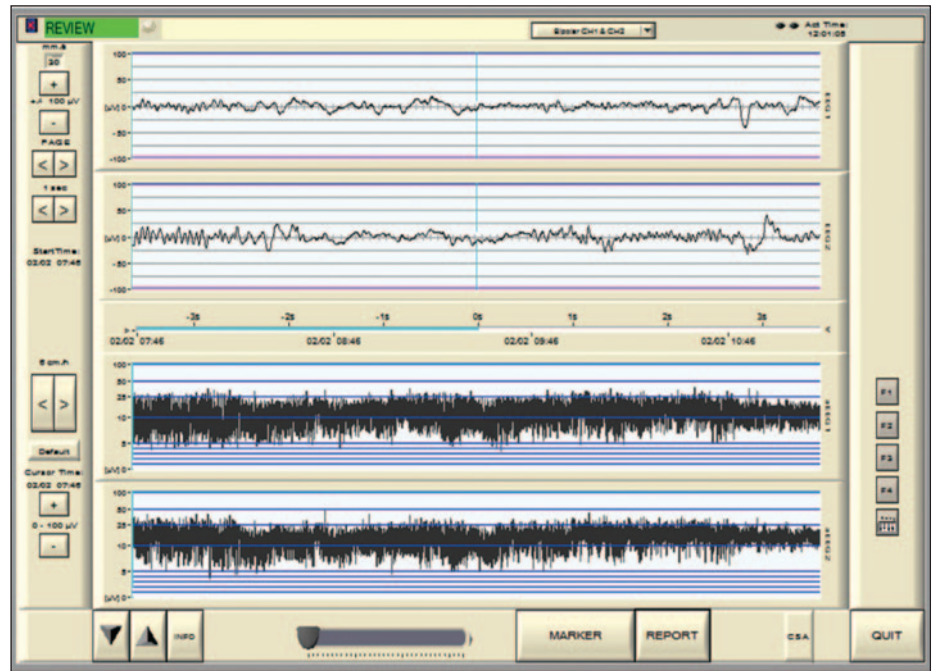


Rod Kelly, Vix Monnelly, Cindy Sykes (Scotstar – South East Scotland Neonatal Transport Service)

Cerebral function monitoring (CFM) provides information about the electrical activity of the brain over time. The development of portable devices has allowed the use of CFM by transport teams at referring units that do not have access to CFM, and during the transport itself.

It is predominantly used in neonatal encephalopathy and to identify electrical seizures, although it may also have an increasing role in the assessment of sick neonates who are muscle relaxed and therefore cannot have their neurological status monitored clinically.

We have used the Unique CFM device on neonatal transports in the south east of Scotland, including one transport by rotary wing aircraft. The recording was maintained during the transport phase, and was not significantly affected by artefact.



A sample CFM trace recorded during a transport episode.

## Potential benefits

- Can confirm electrical seizure activity in cases of suspected clinical seizures
- Can provide a baseline tracing prior to the commencement of anti-seizure medication
- Can provide additional information to inform decisions about commencement of therapeutic hypothermia (only in selected cases that do not automatically fit cooling criteria)
- May have an increasing role in the monitoring of acutely unwell neonates who are muscle relaxed (where clinical seizures would not be apparent)

## Considerations

- Appropriate training in the placement of electrodes and the interpretation of traces is mandatory
- There is potential for the application of CFM to delay the transfer of neonates and therefore its use should be guided by local policy and only include cases where management decisions may be altered
- It is prudent to note the type and placement of electrodes required by the receiving hospital. This ensures a smooth transition and prevents unnecessary trauma to the baby caused by removing and replacing electrodes

## Conclusions

Portable CFM can be a useful adjunct in a specific group of patients. It is possible to maintain an interpretable trace through the transport episode.



With more transport teams now looking to carry out CFM monitoring in transport, Inspiration Healthcare is pleased to offer a tablet PC for use with the Unique CFM.

The tablet is designed and manufactured by Toshiba and comes preloaded with both Windows and the Unique CFM

monitoring software.

With a 10" screen, greater battery life and a faster, more powerful processor than previous tablets for use in transport, the Unique Tablet by Toshiba is a step forward in the Unique CFM technology and is designed to make monitoring babies in

transport easier and more reliable than ever before.

For added connectivity and ease of use during the move from transport to the NICU, patient data can be transferred from the tablet to the Unique CFM screen at the bedside via USB.

For further information, see the advertisement on the inside front cover or contact Inspiration Healthcare Limited  
Tel: +44 (0) 1455 840 555 info@inspiration-healthcare.com www.inspiration-healthcare.com