Improved patient safety during critical care transfers resulting from a sustained Network approach.

J M Handy1,2, G Suntharalingam3, A Walsh4
For and on behalf of the North West London Critical Care Network
1 Consultant, Intensive Care Medicine; Magill Department of Anaesthesia, Intensive Care and Pain Management. 2 Honorary Senior Lecturer, Imperial College London School of Medicine, Chelsea and Westminster Hospital, London, UK. 3 Medical Lead, North West London Critical Care Network. 4 Network Director, North West London Critical Care Network, London, UK.

BACKGROUND
Critical care transfers are recognised as being an intervention during which patients may be exposed to increased critical events. The risks of transfers have been highlighted with repeated calls for standards to improve. Previous models for improving the quality of critical care transfers have largely focused on single interventions.

AIM
We analysed the 5 year impact of implementing a multifaceted Network strategy aimed specifically at monitoring and improving patient safety during critical care transfers.

METHODS
The North West London Critical Care Network is a regional critical care collaboration of acute hospitals and commissioners, covering an urban adult population of 1.5 million. The number of member hospitals was 17 in 2005, increasing to 19 in 2008, with varying critical care capacity in each. Following the development and widespread adoption of the Network transfer form, analysis of early data revealed:

• A high number of transfers that were taking place due to lack of capacity in the referring hospital (non-clinical transfers)
• The majority of escorting personnel had not received specific training in critical care transfers
• A large number of critical incidents were occurring, particularly due to equipment problems.

In response to these findings a strategic response was developed which included:

• The development and implementation of a standardised, regional transfer training package aimed at addressing the specific issues highlighted within the Network sector
• The collation of hospital-specific data which was reported monthly, quarterly and annually at all clinical and management levels.
• Widespread presentation of data and strategy within a variety of clinical and managerial groups (including nursing, medical, physiotherapy and local critical care delivery groups) and to commissioners with the focus on keeping patient care local.
• The review and renewal (where indicated) of equipment used during transfers at local sites across the sector.

RESULTS
In response to the Network strategy, and despite the increased number of member hospitals in 2008, our transfer data revealed:

• A sustained year-on-year reduction in level 3 transfers
• A sustained improvement (reversal) in the ratio of non-clinical to clinical transfers (Fig. 1)
• A reduction in critical incidents, in particular those due to equipment and battery problems (Table 1)
• Our data also showed that neurosurgical emergencies were consistently the most common indication for clinical transfer.

CONCLUSIONS
Our strategy demonstrates that the safety of critical care transfers can be significantly improved at local and regional levels through the adoption of a multifaceted approach targeting: continued transfer data collection and analysis; improved clinician, managerial and commissioner awareness of transfer issues; education of escorting staff; review of recurring critical incidents with targeted strategies for reducing them.

Regionalised critical care networks offer a unique facility to evaluate and implement such strategy.