

# The role of High fidelity simulation in a regional teaching programme

Hearn RI, Boyd M; Turnbull E; Byrne S  
Northern Neonatal Network

Contact: [rhearn@nhs.net](mailto:rhearn@nhs.net)

## Background

The Northern Neonatal Network covers a population of 3 million over a large, geographically diverse area of England. Services are delivered by 8 level 1 units and 4 level 3 units. See figure 1.

The network has been delivering workshop incorporating high fidelity simulation across level 1 sites over the last 2 years.

The purpose is the delivery of education around the management of the newborn infant requiring transfer for an escalating level of care.

Teaching is based around a short series of lectures, practical workshops, incorporating simulation of procedures, and small group teaching followed by exposure to simulation of scenarios likely to be encountered in the stabilisation of this group of infants.

The course has, from verbal feedback, been well received and candidates have clearly stated an appetite for more but with the roll out of a national advanced resuscitation course and two years of candidate feedback it was time to review the role of this course and what we have learned. Our findings are outlined here.



## Synopsis of 41 candidate feedback forms

### Positive feedback

1. Delivered Locally
2. Only one day
3. Free
4. Local faculty
5. High fidelity simulation
6. No formal examination

### Areas to develop

1. Candidate skill mix
2. Increase frequency of delivery
3. Increase simulation element
4. Pre course material

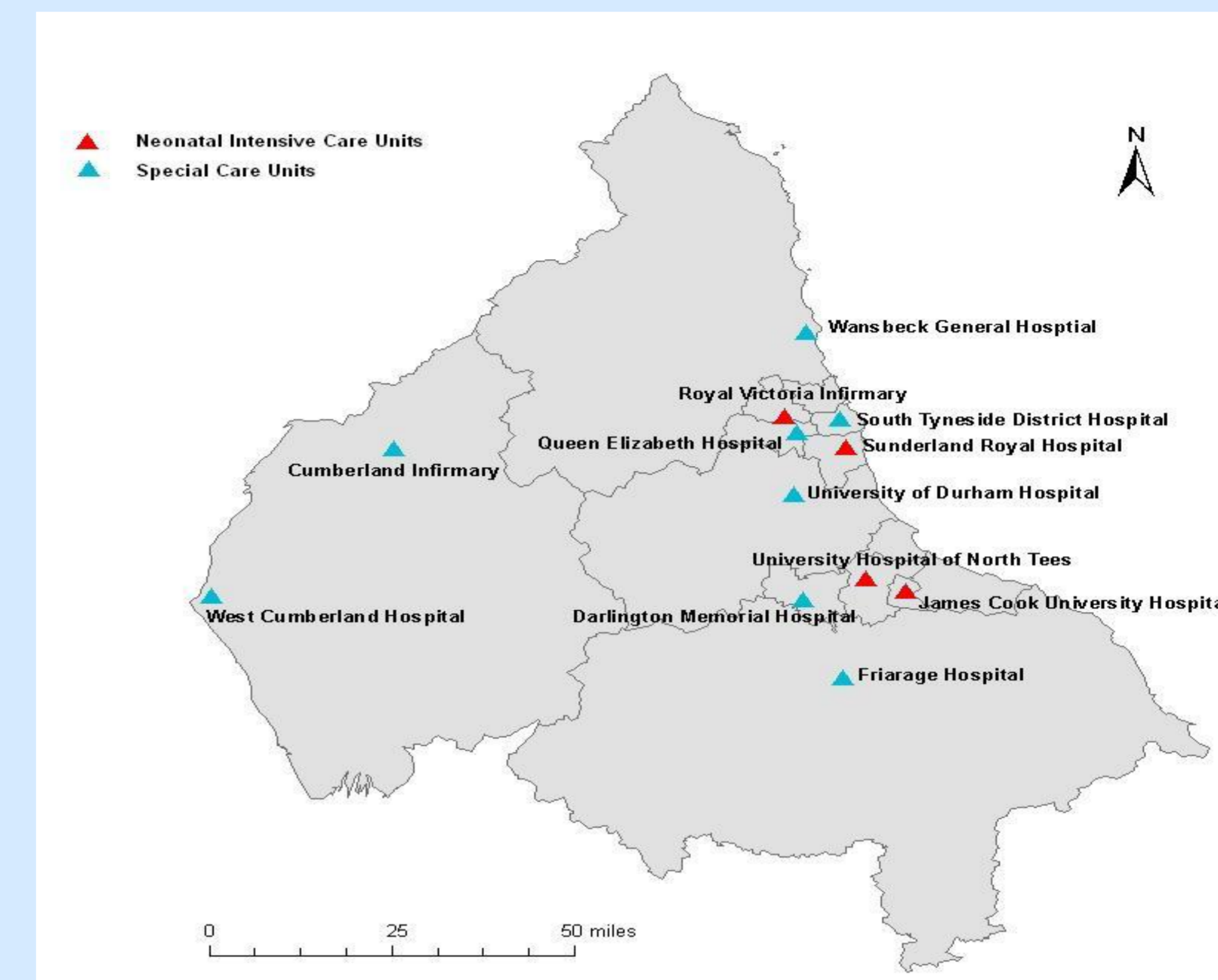


Figure 1



## Discussion

National courses such as NLS & ARNI should be seen as a 'gold standard' of training newborn resuscitation, however

- They are infrequent for the individual.
  - Evidence shows that without ongoing exposure taught skills may deteriorate over time<sup>2</sup>
  - Low dose, high frequency instructor delivered training has previously been shown to potentially improve performance<sup>3</sup>.
- Courses tend to be in distant centres.
  - They often require out of region travel and can be expensive
  - Candidates are in groups outwith their normal clinical team often using unfamiliar equipment in unfamiliar environments.

The regional course

- Provides local, free, training to candidates in a one day format which reduces disruption to clinical service.
- Enables candidate groups to perform within real clinical teams.
- Enables increased interaction between the faculty (level 3) centres & candidates (level 1) centres aiding understanding and realistic expectations.

As a development we have encouraged course centres to set up their own equipment as found in their clinical environment allowing candidates to critically appraise optimal equipment/environmental set up with the aid of faculty.

In conclusion

The regional stabilisation course remains a useful educational tool as it offers:-

- Increased opportunity for local training making it more accessible
- Opportunity to develop local teamwork and process

Future development needs to include :-

- improve candidate skill mix to aid simulation
- more frequent delivery of training..

There remains a place for this form of training. It is still relatively infrequent. More locally delivered simulation training may also aid team performance<sup>4</sup>.

### References:

1. Resuscitation Council. UK. October 2010. Resuscitation Guidelines. London
2. Mosley CMJ, Shaw BNJ. A longitudinal cohort study to investigate the retention of knowledge and skills following attendance on the Newborn Life support course. Arch Dis Child 2013;98:582-6.
3. Sutton RM, Niles D, Meaney PA, et al. Low-dose, high-frequency CPR training improves skill retention of in-hospital pediatric providers. Pediatrics 2011;128:e145-51.
4. Hearn RI. Can I (still) resuscitate a baby? Arch Dis Child 2013;98:572-573