Procedural Training in Neonatal Care

Abstract:

Practical elective and emergency skills form an essential part of neonatal care. Paediatric trainees should be competent in certain procedures such as intubation and umbilical line placement. These are essential requirements for general paediatric training according to the Royal College of Physicians of Ireland. We sought to determine the current status of postgraduate neonatal procedural skills training in Ireland. An 11 item questionnaire was posted to paediatric trainees in 18 Irish hospitals with a paediatric and/or neonatal service.

Of the 190 trainees surveyed 149 completed questionnaires (78%) were returned. Less than half the respondents (46%) were at SHO level. Almost half of SHOs had neonatal experience in a Tertiary neonatal unit. Over half (55%) never had the opportunity to intubate. Less than a third (30%) had the opportunity to insert a central umbilical or venous line and only 10% had the opportunity to insert a long line. Very few SHOs (3%) had the opportunity to insert a chest drain. There was no difference between SpR and non-SpR registrars in their self-reported success rate in performing practical procedures, other than chest drain insertion where SpR registrars had a self reported higher success rate (88% versus 46%, p value 0.001).

This survey of procedural skills has highlighted some of the limitations of the current training model in neonatal care, which currently places unrealistic expectations on junior registrars at the commencement of their neonatal rotations. Tertiary neonatal units should provide the environment in which trainees have the opportunity to achieve the necessary procedural skills. However, many of our respondents stated that they were never afforded the opportunity to perform certain procedures. There are many reasons why this may be the case, including recent changes in practice e.g. greater emphasis on non invasive ventilation has led to a reduction in the opportunities to perform endotracheal intubation. Teaching and learning procedural skills requires time to gain the basic theoretical knowledge and subsequently consolidate the skills with exposure and practice.

We encourage the development of a competency-based curriculum for trainees in neonatology, identifying the necessary procedural skills along with effective simulation based training and setting effective measures in monitoring performance. The Direct Observation of Practical Skills (DOPS) has been developed by the RCPCH to specifically assess competence in practical skills. DOPS include knowledge of the procedure, adequate preparation, and the necessary technical skills during the procedure. This approach should be modified and adapted for neonatology training in Ireland. This work based assessment model should include a structured performance management process that would be overseen locally by trainers. A clinical skills laboratory with emphasis on procedural skills and management of rare emergencies as well as the more routine would be beneficial. This competency based training model would move away from a time based approach and may result in trainees acquiring the necessary skills, especially in light of the reduced working hours proposed by the EWTD. It is essential that good quality education and training in necessary skills take place to ensure continued patient safety.

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References