Implementation of Neonatal Neurocritical Care Centers; What is the Best Strategy for Low- and Medium-Income Countries?

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Since the advent of therapeutic hypothermia in the treatment of neonatal hypoxic ischemic encephalopathy and advances in neonatal neuro-monitoring techniques [1], there has been an acceleration of the development of the neonatal neurocritical care. While rich countries have been able to quickly enhance NICUs by adoption of a full suite of new diagnostic and treatment equipment, poor and developing countries have not been successful with the same approach, as funding limitations prevent widespread dissemination of adequate care. This context beckons the question of how developing countries can create their neonatal neurocritical care network, while delivering benefits to their communities in a compressed timeframe.

As of this year, there is an option for a servo-controlled equipment for the supply of therapeutic hypothermia and electroencephalogram equipment of integrated amplitude, designed and manufactured in Latin America (Brazil), to meet the specific needs of NICUs in developing countries.

The availability of these lower-cost devices invite consideration of a staged approach in the development of neonatal neurocritical care networks. At a first stage, therapeutic hypothermia centers could be quickly created at scale, along with training of neonatal care groups, mainly in public services where the high incidence of ischemic hypoxic encephalopathy resides. These teams could appropriately deliver therapeutic hypothermia with servo-controlled equipment and could interpret the electroencephalogram of integrated amplitude as an additional tool in neonatal neuro critical care.

This first stage of quick dissemination of care is the foundation block of regional networks, that could then gradually advance into a second stage, of specialization of units and the creation of centers of excellence for neonatal neuro-critical care.

Conflict of Interest

The author is one of the owners of the patent for the Neonatal Laminar Flow Unit (Neonatflow).

Bibliography


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