Cardiology in the Young (2017), **27(Suppl. 6)**, S1–S2
© Cambridge University Press, 2017. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.
doi:10.1017/S1047951117002517

Introduction

Pediatric Cardiac Intensive Care Society Statement: caring for children with critical cardiac disease across the globe

Katherine L. Brown,[1,2] Dorothy M. Beke,[3] David S. Cooper,[4] Graeme MacLaren[5,6]

[1]*Charles West Division, Great Ormond Street Hospital;* [2]*Institute of Cardiovascular Science, University College London, London, United Kingdom;* [3]*Cardiac Intensive Care Unit, Department of Nursing, Boston Children's Hospital, Boston, Massachusetts;* [4]*Cardiac Intensive Care Unit, The Heart Institute, Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio, United States of America;* [5]*Paediatric Intensive Care Unit, Department of Paediatrics, The Royal Children's Hospital, University of Melbourne, Melbourne, Victoria, Australia;* [6]*Cardiothoracic Intensive Care Unit, National University Health System, Singapore, Singapore*

Received: 15 September 2017; Accepted: 15 September 2017

WE ARE BOTH DELIGHTED AND PROUD TO introduce this 'Global Statement' sponsored by the Pediatric Cardiac Intensive Care Society (PCICS), which contains nine articles dedicated to a range of important topics related to caring for children with critical cardiac disease around the globe. This Global Statement was developed on behalf of PCICS with the following issues in mind:

First, the world is getting smaller. It is very unusual for a major event in one part of the world to remain unknown and unheard of on the other side of the globe. Similarly, we can all read and learn from our distant colleagues, as well as our nearest neighbours, by logging onto a computer and checking for the latest updates online. Just as this holds true for new developments, it also applies to long established lessons, especially if they convey something particularly important or insightful. However, despite the ubiquitous nature of news media and the internet, there exist significant and important barriers to the seamless sharing of knowledge with colleagues around the world such as the cost of access to scientific journals and travel to academic meetings, as well as the challenges of finding time among the demands of busy clinical jobs to undertake these activities. Consequently, this PCICS Global Statement is published in an open access format in order to enhance the speed and efficiency with which the information presented is shared.

Second, paediatric cardiac disease is seen the world over,[1] and while paediatric cardiac critical care clinicians face common challenges no matter where they practice – we all deal with patients who have infections, late diagnoses of congenital heart disease, or failure to thrive at one time or another – nonetheless, the prevalence and severity of individual specific clinical problems within this spectrum vary by geographical location. For example, although all of us deal on a regular basis with management of postoperative low cardiac output syndrome, those practitioners based in low- and middle-income settings have the greatest experience in management of late repair of tetralogy of Fallot in deeply cyanotic patients, or cardiac repairs in severely malnourished patients and those affected by tuberculosis. Doctors and nurses based in low- and middle-income settings encounter a greater range and severity of clinical scenarios within these categories, and hence they have evolved skills and expertise in dealing with these in the best possible way to ensure optimal outcomes among their patients. Within this PCICS Global Statement, state-of-the-art material on all of these topics is presented directly by experts in the field based in –amongst other places – Asia, Africa, and South America.[2–4]

Third, all paediatric cardiac programmes have a common goal of treating patients to the highest standard and delivering optimal outcomes while working with

Correspondence to: K. L. Brown, Charles West Division, Great Ormond Street Hospital, London, WC1N 3JH, United Kingdom. Tel: +44 207 813 8180; Fax: 44 207 829 8673; E-mail: Katherine.brown@gosh.nhs.uk

Downloaded from https://www.cambridge.org/core. UCL, Institute of Education, on 10 Oct 2018 at 16:04:27, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/S1047951117002517

available resources, and this depends on the availability of a suitably skilled workforce. PCICS as an organisation holds a fierce commitment to education, training, and guidance as to best practice. This was a motivation in their commissioning of this Global Statement. In the Global Statement, Bronicki et al[5] present a range of experiences and approaches to the training of doctors and nurses around the world in the care of critically ill children with heart disease. Those health professionals reporting from low- and middle-income settings cited the challenges created by a paucity of large training centres and the material impact of a lack of personnel and resources upon their training. Clinicians reporting from higher-income settings celebrated the value of experience gained through centralisation to form large, well-resourced training centres and the adherence to common standards across professional groups.

Fourth, it is important to remember that variations in management for critically ill cardiac patients have been developed to best fit the needs applicable across a great range of settings, and that there is "more than one way to peel an orange". Human beings are resourceful and imaginative, as is illustrated by the solutions found by health professionals working together to meet the inherent challenges that arise in order to deliver the best care. Truly excellent paediatric cardiac programmes have evolved over time in all continents of the globe, finding their own pathways to deliver outstanding care for children with heart disease via a range of means. In addition, paediatric cardiac care has been supported to develop excellence by fostering inter-institutional partnerships, the examples of which – Jamaica, Mexico, India, and Viet Nam – are discussed in the Global Statement by Bastero et al[6]; with the input of "missions" or visiting paediatric cardiac surgical trips, a detailed account of which is provided by Molloy et al[7]; and in finding creative ways to care for critically ill children during transportation from one place to another, as discussed by Ramnarayam et al.[8]

Finally, a range of mechanisms have evolved to measure, monitor, and ultimately improve patient outcomes, this being a general principle that has very wide support within the PCICS organisation. As discussed in the article by Hickey et al,[9] these include the development of multi-institutional clinical databases to which centres can add patient data in order to compare their outcomes with those of others, the use of common and consistent methodologies to adjust for the severity of case mix, the identification of quality metrics to benchmark individual centre performance, and the fostering of a commitment to using improvement science methodologies.

With widely varying resources, training, and personnel, paediatric cardiac critical care clinicians work towards one common goal: to alleviate the suffering of, and provide the best possible outcomes for, children with both congenital and acquired heart disease. This Global Statement should be the first of many initiatives that the PCICS will commission to help them along their way.

Acknowledgements

The authors thank the PCICS president Sandra Staveski and the editor in chief of *Cardiology in the Young* Jeff Jacobs for their tireless support for the Global Statement.

Financial Support

This research received no specific grant from any funding agency, commercial or not-for-profit sectors.

Conflicts of Interest

None.

References

1. Musa NL, Hjortdal V, Zheleva B, et al. The global burden of paediatric heart disease. Cardiol Young 2017; 27 (Suppl 6): S3–S8.
2. Murni IK, MacLaren G, Morrow D, Iyer P, Duke T. Perioperative infections in children with congenital heart disease. Cardiol Young 2017; 27 (Suppl 6): S14–S21.
3. Argent AC, Balachandran R, Vaidyanathan B, Khan A, Krishna Kumar R. Management of undernutrition and failure to thrive in children with congenital heart disease in low and middle income countries. Cardiol Young 2017; 27 (Suppl 6): S22–S30.
4. Iyer PU, Moreno GE, Fernando Caneo L, Faiz T, Shekerdemian LS, Iyer KS. Management of late presentation congenital heart disease. Cardiol Young 2017; 27 (Suppl 6): S31–S39.
5. Bronicki RA, Pollack U, Argent AC, et al. Global perspective on training and staffing for paediatric cardiac critical care. Cardiol Young 2017; 27 (Suppl 6): S9–S13.
6. Bastero P, Staveski SL, Zheleva B, et al. Partnership models for the establishment of sustainable paediatric cardiac surgical and cardiac intensive care programs in low and middle income countries. Cardiol Young 2017; 27 (Suppl 6): S55–S60.
7. Molloy FJ, Nguyen N, Mize M, et al. Medical missions for the provision of paediatric cardiac surgery in low and middle income countries. Cardiol Young 2017; 27 (Suppl 6): S47–S54.
8. Ramnarayam P, Intikhab Z, Spenceley N, Iliopoloulos I, Duff A, Millar J. Inter-hospital transport of the child with critical cardiac disease. Cardiol Young 2017; 27 (Suppl 6): S40–S46.
9. Hickey PA, Connor JA, Cherian KM, et al. International quality improvement initiatives. Cardiol Young 2017; 27 (Suppl 6): S61–S68.

Downloaded from https://www.cambridge.org/core. UCL, Institute of Education, on 10 Oct 2018 at 16:04:27, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/S1047951117002517