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# Fragile Infant and Family-Centered Developmental Care Evidence-Based Standards: Why Interprofessional Implementation Is Essential

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# Establishment of Fragile Infant Forums for Implementation of Standards

In July, we kick off the first Fragile Infant Forums for Implementation of Standards (FIFI-S) to bring together leaders and thought influencers in the intensive care field to develop guidelines for the implementation of the evidence-based Infant and Family-Centered Developmental Care (IFCDC) standards of care <u>https://</u> <u>nicudesign.nd.edu/nicu-care-standards/</u>. We invite all interprofessionals concerned with the appropriate implementation of the published standards, competencies, and best practices to be a part of developing guidelines for interprofessional IFCDC approaches. In this article, we outline the necessity of shared evidence-based standards to ensure that neurodevelopmental care is consistently applied, resulting in optimal interprofessional communication and collaboration.

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#### Foundations of Developmental Care in Intensive Care

In the past few decades, the number of babies in intensive care has increased, and the gestational age at admission has decreased, resulting in significant improvement in outcomes due to enhanced medical and nursing care. Mortality and morbidity have decreased, yet at the same time, perplexing neurodevelopmental and mental health adverse outcomes have not been eliminated. However, the incidence and severity of these adverse neurodevelopmental outcomes appear to have decreased (1).

Emphasis on what we now recognize as developmental care, which focused on changing the outcomes of babies in intensive care, began in the early 1980s and 1990s with the work of Dr. Stanley Graven (2, 3), which focused on the environmental and caregiving approaches in neonatal intensive care. Dr. Heidelise Als (4-6) developed an individualized developmental care program that showed improvements in medical and neurodevelopmental outcomes. Other programs since those pioneering approaches have emphasized environmental, caregiving, and family-centered strategies to enhance the outcomes of these medically fragile babies. It may be that these efforts have contributed to the lessening of adverse neurodevelopmental outcomes.

Although early intensive care professional staff primarily included neonatologists and nurses, a gradual influx of professionals has occurred. Social Work professionals were likely the next group to provide essential services in the NICU, and more recently, NICU Psychologists have been recognized as contributing to supporting the mental health needs of families. Other therapy services such as Occupational Therapy, Physical Therapy, and Speech and Language Pathology have also begun to provide services to babies and families in intensive care and practice elements of supporting neurodevelopmental and family-centered care.

## The rationale for Implementation of IFCDC Guidelines

Each of the mentioned professionals is expected to work as a team and share common goals for enhancing the outcomes of babies and families. Each profession has developed training and educational preparation for work in intensive care, and each has a vested interest in enhancing neurodevelopmental outcomes and caring for families. Importantly, each profession is committed to evidence-based approaches to their practice. Below are some examples of resources that address professional expectations by professional groups:

- Nursing: The Joint Position Statement from National Association of Neonatal Nurses (NANN) and Canadian Nursing Associations <u>https://pubmed.ncbi.nlm.nih.gov/28841057/</u> (7)
- Medicine: Guidelines for acute care of the neonate <u>https://</u> relaped.com/wp-content/uploads/2018/08/Guidelines-for-Acute-Care-of-the-Neonate\_2018.pdf
- Occupational Therapy: Knowledge and Skills document: <u>https://www.aota.org/-/media/Corporate/Files/Practice/Chil-</u>

dren/Browse/EI/Official-Docs/Specialized%20KS%20NICU. pdf

- Physical Therapy: Clinical competencies for NICU practice https://journals.lww.com/pedpt/Fulltext/2009/02140/Neonatal\_Physical\_Therapy\_\_Part\_I\_Clinical.2.aspx
- Speech and Language Pathology: Competencies, knowledge, and skills to work in the NICU <u>https://www.asha.org/</u> policy/KS2004-00080/
- Mental Health: Psychosocial Program Standards <u>https://</u> www.ncbi.nlm.nih.gov/pmc/articles/PMC4694191/

Of note, countries outside the United States have developed a variety of position statements for developmentally supportive, familycentered care that are recognized by their respective professions and organizations. Most notably are those in Canada (7) and Europe (8) <u>https://www.efcni.org/activities/projects/escnh/</u> and Great Britain <u>https://s3.eu-west-2.amazonaws.com/files.bliss.org.uk/images/Baby-Charter-booklet-2020.pdf?mtime=20210104142806 &focal=none and <u>https://hubble-live-assets.s3.amazonaws.com// bapm/file\_asset/file/75/Service\_Standards\_for\_Hospitals\_Final\_ Aug2010.pdf</u></u>

Each of the aforementioned professions and organizations has included neuroprotection and family-centered care components and addressed expectations for practice with infants and families. Each has a body of literature to support its respective practices. However, until recently, there has been no cross-discipline approach that would serve as the foundation for interprofessional communication, collaboration, and evidence-based practice.

The Gravens consensus panel members worked to develop interprofessional, evidence-based standards, competencies, and best practice recommendations for IFCDC (9). Each of the respective nationally known disciplines and family members was represented on the panel to ensure input with respect to their professional backgrounds.

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Collaborative efforts of panel members who contributed to the development of the IFCDC standards resulted in the identifying evidence that contributes to cross-discipline practice using accepted procedures and processes <a href="https://www.wolterskluwer.com/en/expert-insights/the-basics-of-clinical-practice-standards">https://www.wolterskluwer.com/en/expert-insights/the-basics-of-clinical-practice-standards</a>.

The next step is to develop approaches to ensure that developmental family-centered care is also available to babies and families in intensive care regardless of the professional providing services. This step in implementation will necessarily take a collaborative team approach. As noted by Manser et al.(10) and Tawfik et al. (11), teamwork and collaboration are essential to avoid errors, provide patient safety, and increase resiliency in the professional staff. That means having a consistently applied and articulated set of standards and best practices that the team can integrate into their day-to-day work. A systems-based approach to implementing the standards that a team of vested professionals can use is necessary to ensure that the IFCDC practices are consistently applied, evaluated, and documented.

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Implementation of the standards is not easy, as each intensive care unit is different and has its management style, culture, resources, and strengths. In order to help with interprofessional implementation, concrete, specific yet flexible strategies are needed. The focus of the FIFI-S forums is to do just that—to provide structure and support for implementing the evidence-based IFCDC standards to support each interprofessional team with a reasonable and applicable road map.

### A Forum to Address Standards Implementation

Please join us in developing interprofessional implementation strategies and materials at the first Forum that will focus on implementing the Feeding, Eating, and Nutrition Delivery Standards, Competencies, and Best Practices for Babies and Families in Intensive Care. Subsequent year Forums will focus on other standards, so come and help us kick off the 2022 Forum and help us get started on the development of useful implementation strategies. The Forum will be held July 13-15 with a nationally known group of professionals and practitioners (see more information and how to register in the June issue of Neonatology Today). We hope to see you there—in person or virtually.

#### **References:**

- Hee Chung E, Chou J, Brown KA. Neurodevelopmental outcomes of preterm infants: a recent literature review. Transl Pediatr. 2020;9(Suppl 1):S3-s8.
- Graven SN, Bowen FW, Jr., Brooten D, Eaton A, Graven MN, Hack M, et al. The high-risk infant environment. Part 1. The role of the neonatal intensive care unit in the outcome of high-risk infants. J Perinatol. 1992;12(2):164-72.
- Graven SN, Bowen FW, Jr., Brooten D, Eaton A, Graven MN, Hack M, et al. The high-risk infant environment. Part 2. The role of caregiving and the social environment. J Perinatol. 1992;12(3):267-75.
- 4. Als H, Duffy FH, McAnulty GB. Effectiveness of individualized neurodevelopmental care in the newborn intensive care unit (NICU). Acta Paediatr Suppl. 1996;416:21-30.
- 5. Als H, Lawhon G, Brown E, Gibes R, Duffy FH, McAnulty G, et al. Individualized behavioral and environmental care for the very low birth weight preterm infant at high risk for bronchopulmonary dysplasia: neonatal intensive care unit and developmental outcome. Pediatrics. 1986;78(6):1123-32.
- 6. Als H, Lawhon G, Duffy FH, McAnulty GB, Gibes-Grossman R, Blickman JG. Individualized developmental care for the very low-birth-weight preterm infant. Medical and neurofunc-

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tional effects. JAMA. 1994;272(11):853-8.

- Milette I, Martel MJ, Ribeiro da Silva M, Coughlin M. Guide-7. lines for the Institutional Implementation of Developmental Neuroprotective Care in the NICU: A Joint Position Statement From CANN, CAPWHN, NANN and COINN. Adv Neonatal Care. 2019;19(1):9-10.
- 8. Lindacher V, Altebaeumer P, Marlow N, Matthaeus V, Straszewski IN, Thiele N, et al. European Standards of Care for Newborn Health-A project protocol. Acta Paediatr. 2021;110(5):1433-8.
- Browne JV, Jaeger CB, Kenner C. Executive summary: 9. standards, competencies, and recommended best practices for infant- and family-centered developmental care in the intensive care unit. J Perinatol. 2020;40(Suppl 1):5-10.
- 10. Manser T. Teamwork and patient safety in dynamic domains of healthcare: a review of the literature. Acta Anaesthesiol Scand. 2009;53(2):143-51.
- 11. Tawfik DS, Sexton JB, Adair KC, Kaplan HC, Profit J. Context in Quality of Care: Improving Teamwork and Resilience. Clin Perinatol. 2017;44(3):541-52.

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