Neonatal Vascular Access – Achieving and Maintaining

Objectives

- Summarize the observational study findings regarding identification of practices related to neonatal vascular access device insertion and management including risk factors and the incidence of complication development
- Identify the various types of vascular access devices used most often in the NICU setting and list the advantages and disadvantages of using each device
- Describe the process used to establish clinical criteria supporting the development of the NICU Vascular Access Decision Tree as presented
- Outline the education, training, and ongoing requirements for developing NICU vascular access nurses and maintaining a competent vascular access team (VAT)
- Explain the implementation process used to introduce and assess the use of the extended dwell peripheral intravenous (EPIV) catheter as a vascular access device in the NICU setting

Content Outline

1. Observational Study of Neonatal Vascular Access Practice and Complications
   - 1.1 Study materials and methods
   - 1.2 Participant demographic and clinical characteristics
   - 1.3 Device characteristics including use and management
   - 1.4 Device complications, failures, and related risk factors
2. Implementation of Extended Dwell Peripheral Intravenous Catheters in NICU
   - 2.1 Overview of the most commonly used vascular access devices in NICU
   - 2.2 Development of clinical criteria guiding vascular access device use in NICU
     - 2.2.1 NICU Vascular Access Decision Tree
   - 2.3 NICU vascular access nurse education and training process
   - 2.4 Assessment of clinical outcomes related to EPIV catheter implementation
   - 2.5 Study limitations, conclusions and resulting recommendations

Reading Material Resources

Module WB2551 Neonatal Vascular Access – Achieving and Maintaining is based on the resources listed below. A copy of each resource is included with the module.

Neonatal Vascular Access Practice and Complications – An Observational Study of 1, 375 Catheter Days, McIntyre C et al., *Journal of Perinatal Neonatal Nursing*, (2022), Wolters Kluwer Health, Inc., 1-8

Effective Use of Extended Dwell Peripheral Intravenous Catheters in Neonatal Intensive Care Patients, Marchetti JM et al., *Advances in Neonatal Care*, (2022), National Association of Neonatal Nurses, 1-9

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