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Indications, Measurements, and Complications of Ten Essential Neonatal Procedures

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Abstract
About 10% of newborns require some degree of assistance to begin their breathing, and 1% necessitates extensive resuscitation. Sick neonates are exposed to a number of invasive life-saving procedures as part of their management, either for investigation or for treatment. In order to support the neonates with the maximum possible benefits and reduce iatrogenic morbidity, health-care providers performing these procedures must be familiar with their indications, measurements, and potential complications. Hence, the aim of this review is to summarise ten of the main neonatal intensive care procedures with highlighting of their indications, measurements, and complications. They include the umbilical venous and arterial catheterizations and the intraosseous line which represent the principal postnatal emergency vascular accesses; the peripherally inserted central catheter for long-term venous access; the endotracheal tube and laryngeal mask airway for airway control and ventilation; chest tube for drainage of air and fluid from the thorax; and the nasogastric/orogastric tube for enteral feeding. Furthermore, lumber puncture and heel stick were included in this review as very important and frequently performed diagnostic procedures in the neonatal intensive care unit. Copyright © 2023 Zainab Bubakr Hamad Zubi et al.

Index Keywords
aortic aneurysm, aortic thrombosis, atelectasis, bleeding, bronchospasm, catheter related bloodstream infection, chylothorax, compartment syndrome, congestive heart failure, device infection, diarrhea, endocarditis, esophagus perforation, extremely low birth weight, false aneurysm, gastroesophageal reflux, heart arrhythmia, heart tamponade, hematoma, human, hydrothorax, hyperalimentation, hyperinsulinemia, hypernatremia, hypertension, hypoglycemia, hypotension, intestine perforation, ischemic necrosis, kidney failure, kidney injury, larynx spasm, leg ischemia, leukomalacia, lumbar puncture, lung edema, lung embolism, lymphadenitis, malignant hyperthermia, necrotizing enterocolitis, neonatal intensive care unit, osteomyelitis, pneumomediastinum, pneumothorax, renovascular hypertension, Review, sepsis, soft tissue infection, soft tissue injury, spinal cord ischemia, staphylococcal scalded skin syndrome, stomach perforation, subglottic stenosis, thromboembolism, thrombosis, tissue necrosis, umbilical venous catheterization, vascular access, vasospasm, vein catheterization, vomiting

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