The Division of Neonatal-Perinatal Medicine provides care for critically ill newborns and premature infants in North Carolina Children’s Hospital’s Newborn Critical Care Center (NCCC). The NCCC is a 58-bed facility served by 11 board-certified attending neonatologists, 18 nurse practitioners, and more than 150 neonatal specialists from UNC Hospitals. The Center averages 800 admissions annually, providing care to newborns from over 50 counties in North Carolina. The newborns we care for are typically born either prematurely (i.e., before the end of the 37th week of pregnancy) or with life-threatening birth defects or medical conditions. The NCCC is a regional referral center for advanced therapies, including extracorporeal membrane oxygenation (ECMO), nitric oxide therapy, high frequency ventilation and the latest surgical techniques.

The Division of Neonatal–Perinatal Medicine is also committed to improving neonatal care by engaging in clinical research. Our faculty have diverse research interests and are involved in national and global research. We work collaboratively with the Duke Neonatal Perinatal Research Unit as a Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) Neonatal Research Network (NRN) site and participate in the Pediatric Trials Network (PTN).

The Division occupies six sets of offices/rooms on the fourth floor of the UNC Memorial Hospital building as well as some individual faculty offices and laboratories in the adjacent buildings. The fourth floor of the UNC Memorial Hospital and the NC Children’s Hospital have contiguous hallways that provide easy access to the NCCC facilities. The administrative suite for the Division (Suite 4018) contains six, 167-276 square foot offices.  These house four individual faculty members, an office for an administrative assistant, and an office for the neonatal fellows. There is also a 288 square foot central area with modular furniture work spaces for a full-time secretary and one accountant. Centrally shared resources include one laser printer, one scanner, one photocopy machine, and a fax machine. Each office or work area includes at least one fully networked PC workstation (9 total) and telephone. Faculty computers also are equipped with data analysis and statistical software packages available through the University’s mainframe computers (see above).  All computers are connected via the local area network to the University mainframe computers.

The Division’s classroom (Room 4013) is used for meetings and educational conferences. With 180 square feet it can seat 16 and has a blackboard, projection screen, slide projector and VCR/monitor.  This space is augmented by the conference room in the NCCC (see above) that adds teleconferencing capabilities. Having two conference rooms/classrooms will facilitate scheduling the multiple ongoing administrative and research meetings, formal didactics, and educational conferences in which the Division is involved. A 320 square foot suite (Suite 4011) has two offices and an anteroom. Each work area is equipped with a networked PC workstation and printer similar to the Divisional office equipment and a telephone. Room 4010 is an undivided 192 square foot space subdivided with modular furniture into work stations for 6 Neonatal Nurse Practitioners.  There are two centrally located PC workstations and telephones. A 96 square foot office (Room 4009) currently contains two PC workstations and telephones for a Neonatal Nurse Practitioners. Room 4008 is a 160 square foot room is used to support clinical research. It has two desk spaces, storage units, file cabinets and two computer stations with network connections. This area for support of clinical research and is used for research personnel when the support space adjacent to the NCCC (see below) cannot accommodate all the office needs of these personnel.

The Division of Neonatal-Perinatal Medicine is linked to the UNC system via the School of Medicine’s intranet connections. Individual computing capabilities for the Division and Center are included in the description below.  Individual computers and local systems such as printers for the Division and Special Infant Care Center are maintained by the Department of Pediatrics’ computer support service which has three dedicated staff. They provide hardware and software support, and same-day technological support for most computing problems.

The Division has 30 computers, 15 of which have at least a 2.1 gigahertz Pentium 4 processor with 2 GB of RAM. All systems use Windows 7 operating system and include the following common software: Microsoft Office 2010 Professional, Internet Explorer, Firefox, Hummingbird TN3270, Adobe Acrobat, Java (RTEngine), and Symantec Antivirus. In addition, the statistical programs STATA, SAS, and SPSS as well as Endnote, a software tool for publishing and managing bibliographies, are available on an as needed basis. The UNC Health Sciences Library electronic resources are available on or off-campus. Finally, each individual is able to log on to his/her computer from any computer in the world via the internet using a secure remote software package.

Backup and data replication: Backing up the K:\ drive are server class 400GB SAS drives in a RAID5 configuration. These disk drives are actually four hard drives that function as a single large drive. This means that if one of the physical drives crash, the other three continue without a problem. When the drive is replaced, the other three will rebuild it. If two drives die, the technology is able to reconstruct the data without loss. Tape backups on the K: drive occur at 7:00pm nightly. Full Backups run every Friday at 7:00pm. This backup collects all files that are present in the K:\shared, K:\users, and K:\apps folders. Differential Backups, which backs up everything that has been changed since last full backup (on Friday), are run nightly (Sun-Thurs). The Tapes are maintained in an Exabyte tape library unit that holds 20-400-800GB LTO3 tapes. Data on backup tapes are preserved for about two-four weeks before they can be overwritten. Periodically, at about six month to one year intervals, a tape is archived for historical purposes.

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