

Fellowship in Neonatal/Perinatal Medicine

Dartmouth-Hitchcock Medical Center

Training Program Overview and Guidelines

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GENERAL PHILOSOPHY OF TRAINING PROGRAM

Fellows should achieve all-round training in clinical, research, teaching, professionalism, and administrative/leadership domains by the end of their training program.

Fellows function not only as trainees but also as educators, and supervisors, and often function in the capacity of junior attendings, particularly toward the end of their fellowship training.

Fellows should demonstrate a commitment to the neonatal division and the ICN throughout the duration of training. The relationship between fellows and NNP's is collaborative, with each group learning from and assisting the other.

CLINICAL TRAINING

Orientation The first rotation for new fellows will differ from subsequent rotations. The purpose of this rotation is to allow the new fellow to learn the system of care in the DHMC ICN, evaluate skill levels, and identify areas that may need special attention. During this rotation, fellows will function as a member of the front line patient care team, similar to a resident or associate provider. They will have primary responsibilities for a group of patients, including collecting daily information, physical exam, presentation of the patients during rounds, writing orders and TPN, and documentation (admission H &P, daily progress notes and discharge summaries). These skills are important, as they will be needed when the fellow is taking in-house call. New fellows will also take in-hospital call with an NNP/PA (known as associate providers/APs during this month in order to orient to the work flow and responsibilities overnight in the ICN. The orientation month should also include orientation to the transport process including DHART training and at least two ride-alongs with the transport team. Fellows will also be expected to observe several in-patient perinatal consults and be shown appropriate documentation of consults in the EHR. Early in the fellowship, fellows should hone their procedural skills, especially taking advantage of the knowledge, skills, and experience of the AP's. This may involve taking extra 'call' with AP's to maximize exposure to procedures, and coming to the unit even when not on clinical

service, to examine patients or assist in procedures that will further their learning. New fellows should be proactive in seeking learning experiences with invasive procedures and in general should get priority for performance of such procedures, particularly during the first six months of fellowship.

On-service Rotations in the ICN

Over the course of fellowship, fellows are expected to complete a total of 12 on-service months in the ICN as well as a MFM rotation and an elective rotation. In subsequent rotations, when on service in the ICN, fellows will function largely in a supervisory capacity, similar to a junior attending, and will be expected to develop good leadership, team-management and decision-making skills. It is expected that independence in running the ICN will gradually develop over the course of the fellowship, so that by the 3rd year, fellows will usually take a more independent role, using the attending as a consultant. This independent role will include taking the lead in running rounds and family meetings, as well as participating in transport calls and admissions.

Fellows on service will be assigned to the ICN for four weeks at a time ('On-service' time). Rotations should start on a Monday and conclude on a Sunday. During this month, the fellow will participate in daily patient rounds, attend high-risk deliveries, evaluate all new admissions, supervise and participate in invasive procedures, and be involved with any major care issues. The fellow should be prepared to help out with primary patient care when necessary. There should be frequent communication with the attending about any ongoing issues in the ICN. Fellows will be responsible for inpatient Obstetric consultations with the attending available to mentor fellows prior to a consultation or be available to participate with the fellow in particularly challenging consultations. Fellows on service in the ICN should attend morning sign-out each day.

While on-service, fellows will also be available to participate in transports during the day as the team leader when a three-person transport team is required. When able to, they should listen in on transport

calls in order to begin to develop an understanding of the transport process as well as the challenges in supporting physicians at outside hospitals while awaiting the arrival of the transport team.

As far as possible, fellows should not schedule travel or other commitments during their service months. In special situations, with the permission of the Program Director and the attending physician/s on service during the relevant period, fellows can be away from the ICN for portions of their service month as long as the total duration of training is not compromised. Special circumstances for fellows to be away during a service month include attending a conference to present research data, arranging time for a block period in a laboratory, or taking a subspecialty rotation. Vacation should be planned during periods when not assigned to the ICN and in general should not be a reason to change rotation times. All changes, however, must be approved by the Program Director.

MFM Rotation

Fellows will participate in a 4-week maternal-fetal medicine rotation during fellowship in order to better understand the evaluation and management of preterm and high risk fetuses and their mothers. This rotation will include time spent in MFM clinic observing evaluations, ultrasounds and consults completed by the MFM physicians. Fellows should also arrange to follow the genetic counselors for one to two consults and observe prenatal consults done by the neonatology attendings as available during this rotation. If there is a mother seen with the genetics counselors who is then referred to meet with pediatric subspecialists, fellows are encouraged to observe those consultations as available. Lastly, fellows will have opportunities to work with the radiologists reviewing prenatal anatomy scans and follow-up ultrasounds, as well as fetal echocardiograms done by the pediatric cardiologists.

Elective Rotations

Fellows are encouraged to seek rotations in subspecialties such as cardiology, developmental pediatrics, neurology, radiology, genetics and pediatric surgery based on their interests. These rotations should be

elected in consultation with the Program Director. During other subspecialty rotations ICN call schedules will continue. In addition to an elective rotation, fellows should make arrangements directly with the Developmental Pediatrician to attend at least two clinics over the course of fellowship in order to directly observe administration of developmental evaluations. Fellows will also be expected to spend at least one day with the pediatric radiologists reviewing head ultrasounds.

Call Schedule

Each fellow will take in-hospital call in the ICN once a week. This adds up to 48 weeknights a year (after subtracting vacation and Christmas holidays). Each fellow will take call for 24 hours one out of four weekends. This adds up to 13 weekend calls a year. Weekend call will include participation in rounds with the attending as well as call in house overnight. When on service in the ICN and in-hospital call is assigned, fellow must adhere to 28 hour rule (i.e. fellow must go home before 11am the next day). All call schedules should be updated every month so that a finalized schedule for the subsequent three months is always available.

In-Hospital Call

During in-hospital call, the fellow is responsible for the care of all of the patients in the ICN. An attending will always be on call and available as much as needed. Sign-out for in-hospital night call should be obtained from the day shift NNPs and residents, as well as from the on-service fellow when applicable. When a fellow is taking in-hospital call with a resident, the fellow's responsibilities will depend largely on the skills and abilities of the resident. In some cases, the fellow's role may be entirely supervisory. In other cases, the fellow may need to take over the care of a group of patients while supervising the resident in their care of another group. Although it is expected that frequent communication between the attending and fellow will take place regarding individual patient care issues when on call, it is often helpful to summarize issues, performance, etc with the attending in the morning

after call. Duty hour limitations require that the fellow go home by 11 AM the day after a night of in-hospital call (28 hr rule).

Clinical Documentation

Fellows should write an admission note on all new admissions to the ICN when they are on service, or on call (in-hospital or from home). These do not need to be full admission notes, rather a brief note outlining the history, physical, assessment and plan. If the fellow is the admitting provider overnight, then they will need to complete a full H&P note for formal documentation in e-DH. Any interaction with patients should be documented in a note, as well as any invasive procedures. Fellows should also write 'event notes' to describe a significant change in a patient's condition and to document any significant diagnostic tests performed or treatments instituted. All prenatal consultation notes should be documented in the chart. All the notes above should be forwarded to the attending physician on service or on call for review and co-signatures as needed.

Transport

Experience with neonatal transport is an essential part of fellowship training. Early in their fellowship, fellows will gain transport experience by going on buddy transports as observers. PALS and NRP certification and completion of the MILES and DHART courses are minimum prerequisites to becoming a transport team leader. Occasionally, fellows will also serve as team leaders for neonatal transports when on service in the ICN, when on call in-hospital, or when on call from home. In these situations, appropriate hand-off of issues should be made with the attending or NNP when the fellow goes out on transport. As a fellow progresses through fellowship they will take more of a leadership role in leading transport calls and will begin to help facilitate transports and admissions to the ICN. As a 3rd year fellow, fellows (when on-service or on call) participate in transport calls as the leader with the attending either listening in in real time or available for discussion of transport management by phone.

Clinical Responsibilities during Research time

Fellows on research blocks will take weeknight and weekend call as scheduled. Even when on research blocks, fellows should follow the course and clinical problems of the patients in the ICN and should continue to be in touch with families of patients they were involved with. During busy times in the ICN, and when clinical learning opportunities arise (e.g. unusual cases such as hydrops fetalis or infrequent procedures such as an exchange transfusion, or triplet delivery) fellows on research blocks should participate in patient care and perform hands-on care as needed. This may involve helping with invasive procedures, and direct patient care.

Duty Hour Limitations

All fellows must adhere to the current Duty Hour Limitations.

80 hour work week maximum (averaged over 4 weeks).

No more than 28 hours continuous duty (28 hour rule).

At least 10 hours between duty shifts (10 hour rule).

All hours (clinical, non-clinical, moonlighting, lab, etc) are included in the 80 hour rule.

Holiday Schedule and Vacation

Each fellow is allotted three weeks of vacation per year (see below for details).

The fellows' schedule will be different from the routine (non-holiday) schedule over three major holidays – Christmas, New Year's and Thanksgiving.

Coverage over Thanksgiving, Christmas and New Year Holidays: Fellows will be expected to provide coverage during one major holiday each year. Each of these coverage periods is for a seven day period (that need not be continuous – fellows can switch back and forth during the two-week period).

During this seven-day period, the fellow is in the ICN during the day, and functions similar to a

service month, with two in-house night calls during this seven-day period. There may be certain circumstances in which the associate provider group may need help with holiday coverage and fellows can be available to help provide this coverage as needed. These situations should be reviewed on a case-by-case basis with the program director. If there are only two fellows doing clinical time, only 2 out of the 3 major holidays need to be covered.

During the other holidays observed at DHMC (e.g. July 4th, Memorial Day, Labor Day, Presidents Day), if a fellow is on service, he or she works in the ICN like a regular day. If not on service, they can take the holiday off.

ICN Follow up/Developmental Clinic

When not on service, each fellow will spend on average two ½ day a month in Transitional Long-term Care Clinic (TLC). This does not include official vacation time or the period over Holidays. This averages to ~ 18 ½ day clinic sessions per year, or a total of 35 full days during the fellowship.

Specific clinic schedules should be arranged with the Director of the Transitional Long-term Care Clinic. Arrangements should be made with the TLC Program Coordinator to notify fellows when patients are scheduled for clinic. Fellows should provide the Program Coordinator with a list of patients they see in each TLC. They should also document their participation in the evaluation of the patient in the medical record. Based on the degree of the fellows' participation in the patient's care, this documentation can be extensive or can be brief and consist of just a few lines stating that the fellow participated in the patient's evaluation and care, without extensive clinical details.

Moonlighting

Moonlighting opportunities may be available for transport or ICN coverage. To be eligible for moonlighting, fellows must have an unrestricted NH state license, DEA number, and have an appointment

to the DHMC staff with transport privileges. The cost for licensure and DEA number will usually be the responsibility of the fellow since the purpose is for moonlighting. In special circumstances (i.e. when service needs dictate and there is a commitment to cover a certain number of transports as dictated by service needs) the division may cover the costs. This must be individually negotiated with the Program Director and the Division Chief. Moonlighting for ICN coverage cannot be concurrent with other on-call responsibilities. Any moonlighting activities, other than for ICN transports or ICN coverage will need to be negotiated on an individual basis.

EDUCATION

Fellows Conference

These sessions are held Wednesdays each week from 12 PM – 1:00 PM. The purpose is to review pathophysiology, underlying neonatal clinical problems, and preparation for the board exams. Types of conferences could include: physiology seminars, case discussions, clinical practice discussion, and special sessions.

Core Competencies Teaching Sessions

Fellows will meet with the program director once a week (on Wednesday afternoons) to discuss topics related to the six ACGME core competencies – patient care, medical knowledge, interpersonal and communication skills, professionalism, practice-based learning, and systems-based practice .

Other Required Conferences for all fellows (attendance is mandatory for these)

- Neonatology Journal Club: Held during fellows' conference monthly. Each fellow is expected to present at 2-3 journal clubs each academic year.
- Neonatology Division Meeting: each Tuesday 8:00-9:00 AM

- Neonatal Morbidity & Mortality Conference: Quarterly for the Department of Pediatrics, facilitated by the fellows. Divisional M&M conferences will be presented by fellows during fellows conference in the four weeks following a service month.
- Neonatology Pathology Conference: Quarterly, organized and facilitated by the fellows
- Neonatal-Perinatal Conferences: Monthly, held with the OB residents.
- Joint maternal-fetal medicine and neonatology conference: Monthly on Tuesday afternoons
- X-ray rounds: Weekly when assigned to the ICN
- Social-Service Rounds: 1/week when assigned to the ICN
- Pediatric Grand Rounds: weekly
- Pediatric Faculty Conference: weekly

Pediatric Grand Rounds Presentation

Each fellow is expected to do a Pediatric Grand Rounds presentation in their final year of training. Presentations during earlier years of training are also encouraged.

In-Service Training Exam

It is mandatory for all fellows to take the American Board of Pediatrics annual in-service examination in Neonatal Perinatal Medicine.

RESEARCH

General

During the first 6 months of their fellowship, fellows will meet with faculty research advisors to determine an area of research to pursue. The fellowship program director will also facilitate meetings with each neonatology faculty member during the orientation month to learn about the research interests of the faculty as well as possible opportunities to work on projects. It is expected that by 6 months into the fellowship, the fellow will have identified either a clinical or basic science project and a mentor.

Once a project is identified, a Scholastic Oversight Committee will be chosen consisting of 3-4 faculty members to provide guidance for the fellow and to help assure that the fellow is accomplishing the goals of the research requirement. The research mentor will be responsible for arranging any other educational experiences, didactic or practical, as deemed necessary for the research project.

Statistics

All fellows are expected to take a basic course in biostatistics and study design. There are opportunities to take/audit courses through The Dartmouth Institute (TDI) and Dartmouth College.

Quality Improvement

Each fellow is expected to participate in a quality improvement project during their fellowship as part of the ACGME requirements. During the first six months of fellowship, each fellow should work on identifying a need within the ICN and begin to develop their QI project or join an ongoing QI project and take a leadership role within that project. Each fellow should also complete Yellow Belt training as required for clinical fellows at DHMC. Value Institute Yellowbelt training provides students with a broad introduction to the tools used in process improvement work. Employees with Yellowbelt training will have the tools they need to be active participants in department-level process improvement work and will be capable of leading their own individual improvement projects. Fellows will serve on at least one Quality Improvement committee during their fellowship.

Research Meetings

Fellows will be able to attend several regional and national meetings during their fellowship. Attendance at relevant meetings is encouraged and should be discussed with research mentors. There are limited funds available, however, and call schedules must be maintained. At a minimum each fellow will be able to attend one fully funded national meeting during their fellowship. The division will attempt to provide

funding for any approved research meeting for which an abstract will be presented. Opportunities will also be available for attendance at regional meetings, and some national meetings that are sponsored by various organizations.

TEACHING

Teaching in the ICN

While assigned to the ICN, fellows will have a major responsibility for the supervision and teaching of core pediatric residents and medical students. To this end, it is expected that the fellow will be available to the pediatric residents for one-on-one teaching, and for arranging small ‘mini-lectures’ on various neonatal topics. These should be planned to augment the group teaching done by the NNPs.

More specifically, the fellow will be the primary supervisor for the Resident and/or Resident/Medical Student team. Through consulting on high risk OB patients, the fellow will interact with OB residents and students.

Simulation

Fellows will have the opportunity to participate in simulation education for the resident staff as well as in multidisciplinary simulations. If interested, fellows may also become certified as an NRP instructor.

Outreach Education

Each fellow is expected to participate in 1-2 transport conferences each year. The schedules are arranged late in the summer each year. Fellows will also have the opportunity to give lectures at CME conferences. As NRP instructors, fellows will participate in several NRP courses over the course of their fellowship.

DOCUMENTATIONS OF FELLOWSHIP ACTIVITIES

Each month, the following activities must be documented. Forms for this purpose will be developed and they will be turned in to the Program Coordinator at the end of each month or 4 week period.

1. Duty hours
2. Conferences attended (dates, topics and lecturer or discussion leader)
3. Clinics attended (dates and names of patients seen)
4. Transport conferences attended (dates, location, subjects discussed)
5. Task forces or committee involvement
6. Quality improvement projects
7. Meetings attended (dates, location, abstract title if presented)

These activities will be tracked through a Fellowship Dashboard that will be reviewed regularly by the program director.

Case Log

Each fellow will keep a log that will include

All patients that have been seen or taken care of. When on service this will consist of all of the patients in the nursery at the start of the rotation and then each subsequent admission (date of admission, diagnosis, duration of care)

Each procedure performed (date, procedure, ICD9 Code) should be sent to the Program Coordinator through the CIS system

OB consultation (date, diagnosis)

Each delivery room resuscitation (date, diagnosis)

Each Code attended (date, diagnosis)

MEETINGS WITH THE PROGRAM DIRECTOR

Regular meetings (fellowship business meetings) will be held between the program director, program coordinator and the fellows once a month on Wednesday 1 – 2 PM immediately after the fellows weekly

noon conference. The purpose of these discussions will be to keep track of the progress of each fellow and to bring up any problems or issues to be resolved.

VACATION/HOLIDAYS / FAMILY LEAVE AND MISCELLANEOUS

Vacation

According to the GME Red Book guidelines, each fellow will be allowed 3 weeks of vacation per year or a total of 9 weeks over the course of the fellowship. Vacation must be taken during ‘off-service’ months and must be planned and approved in advance by the Program Director. Department form must be filled out and given to Program Coordinator prior to departure. Periods away must be planned long enough in advance to allow coverage arrangements to be made. In general, fellows will not have to ‘make up’ non-in-hospital call during vacation time, but arrangements should be made to assure that all in-hospital assignments with the 2nd and 3rd year resident call nights will be covered.

Holidays

The holiday work schedule is described above

Family Leave

Family leave will be granted according to the GME Red Book guidelines. Expectations for call time and service obligations will be negotiated on an individual basis.

Sick and Personal Leave

Sick and Personal Leave will be granted according to the GME Red Book guidelines. Expectations for call time and service obligations will be negotiated on an individual basis.

Board Requirements

The American Board of Pediatrics requires 33 months of training out of a 36 month program. In other words, vacation time (including the extra time over the Christmas Holidays), family leave time, and sick

and personal leave, job hunting trips, etc must not total > 3 months (13 weeks). If this limit is exceeded, the time must be made up. Official time away at scientific conferences and educational courses is not counted in this and is considered training time.