

## LPCH Neonatal Intensive Care Unit Senior Elective- Red Team/pre-Fellow Rotation

### Rotation Contacts and Scheduling Details

**Rotation Director:** Lou Halamek, MD  
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750 Welch Road, Suite 315  
(650) 723-5711

**Location:** LPCH NICU, 2<sup>nd</sup> floor

**Positions Available:** 1 senior resident per 4-week block  
**Prerequisite:** LPCH NICU rotation (ideal)

**Months Rotation Offered:** every block, but please check with Rotation Director to ensure there aren't already too many bodies in the NICU (med students, sub-Is, visiting residents, and visiting fellows all come through the NICU)

### Introduction

Pediatric housestaff in the Department of Pediatrics at the Stanford University School of Medicine are offered the opportunity to enrich their neonatal management training skills during the LPCH NICU senior/pre-fellow elective rotation. The focus of the housestaff experience is to strengthen their knowledge and gain autonomy in newborn management in the delivery room, stabilization and continuing care of infants admitted to the NICU, and to gain the skills needed to manage a busy NICU team located in a tertiary/quaternary setting.

### Weekly Schedule at a Glance

	Monday *	Tuesday	Wednesday	Thursday	Friday
7:00 - 8:00	Pre-Round	Pre-Round	Pre-Round	Pre-Round	Pre-Round
8:00 - 8:30	Morning Report	Morning Report	Morning Report	Morning Report	Grand Rounds
8:30 - 9:00	Pre-round	Pre-round	Pre-round	Pre-round	
9:00 - 12:00	Rounds, Patient Care	Rounds, Patient Care	Rounds, Patient Care	Rounds, Patient Care	Rounds, Patient Care
Noon	Conference	Conference	Conference	Conference	Conference, Perinatal M&M Conference
13:00 – 17:00	Patient Care, Teaching	Patient Care, Teaching	Patient Care, Teaching	Patient Care, Teaching	Patient Care, Teaching

16:00	Sign-Out	Sign-Out	Sign-Out	Sign-Out	Sign-Out
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## Rotation Specifics

### Orientation

Residents are expected to read this rotation summary prior to the start of their rotation. They should contact the on-service fellow and attending prior to starting the rotation to coordinate roles/responsibilities for day-to-day activities (i.e. patient assignments, delivery room attendance). Senior residents will not serve as frontline providers for patient care; instead, they should focus their efforts on oversight of the entire red team.

Resident workspace: Residents will share the common workspaces (NNP and resident) located in the NICU.

Reading materials:

The NICU guide is available on the LPCH Intranet (<https://intranet.lpch.org/departments/nicu/nicuGuide/index.html>) and serves as an excellent resource tool for all aspects of newborn management. References are cited in each chapter to pursue additional reading on a subject.

### Call Schedule

Call is recommended every 4<sup>th</sup> night. Senior residents should schedule themselves to take call in a manner that does not overlap with the junior residents. Senior residents may “split the night” with the other on-call gap/NNP providers and will be excused after team sign-out when they are post-call (i.e. do not participate in rounds post-call).

### Pagers

Residents will be expected to be available by pager for urgent matters when at educational conferences.

### Rounds

Residents will be expected to arrive no earlier than 7:00am to obtain sign-out from the post-call team. Thereafter, they should prioritize checking on the status of the most critically ill patients, including physical exam, review of x-rays and labs. Rounds will begin at 09:00 am with the attending, NNP support, and housestaff.

### Resident Presentation

Senior residents will be expected to give an informal 15-20 minute presentation during the rotation on a topic of their choice relating to either resuscitation or major morbidities of neonates. This presentation should be aimed at the learning needs of the junior residents (and intern, when applicable) and attended by housestaff, fellow, and attending.

## Resident Roles and Responsibilities

- Provide oversight of all patients on the LPCH NICU red team, provide frontline care when needed (e.g. junior resident post-call)
- Attend deliveries, admit patients, perform necessary procedures whenever possible
- Participate in prenatal consults with on-service fellow
- Act as a liaison between the red team and fellow regarding pertinent patient management issues
- Help keep red team families updated regarding plan of care (coordinated with housestaff and NNPs)
- Prepare an informal presentation to the housestaff during the rotation.
- If/when applicable, present patient overview at Perinatal M&M conference.

### **Evaluation and Feedback**

House officers are encouraged to solicit feedback from the Attending at the mid-point of their rotation to discuss areas for improvement and again at the end of the rotation to gain an overall evaluation. Formal evaluations will be provided through the MedHub system.

## Competency-based Goals and Objectives

<b>Goal 1. Learn the skills required for resuscitation and stabilization of a critically ill newborn</b>			
<b>Resident Objectives:</b>	<b>Instructional Strategies</b>	<b>Assessment of Competence</b>	<b>ACGME Competency Goals</b>
Perform advanced neonatal resuscitation: be able to perform PPV using a T-piece and/or flow inflating bag	Patient care Clinical teaching Simulation	Direct observation Self assessment	MK, PC
Successfully intubate a newborn in the delivery room	Patient care Clinical teaching Simulation	Direct observation Self assessment	MK, PC
Know indications for umbilical line placement and successfully place UAC/UVC	Patient care Clinical teaching	Direct observation Self assessment	MK, PC
Know indications for surfactant administration	Patient care Clinical teaching	Direct observation	MK, PC
Be able to prepare for a complex delivery where advanced resuscitation is anticipated	Patient care Clinical teaching	Direct observation Self assessment	MK, PC, SBP, ICS
<b>Goal 2. Learn the care of an extremely preterm infant</b>			
<b>Resident Objectives:</b>	<b>Instructional Strategies</b>	<b>Assessment of Competence</b>	<b>ACGME Competency Goals</b>
Recognize the sources for increased water losses, monitor electrolytes and respond with appropriate treatment interventions	Patient care Clinical teaching	Direct observation Self assessment	MK, PC
Provide respiratory management of an extremely preterm infant with RDS	Patient care Clinical teaching	Direct observation Self assessment Directed reading	MK, PC
Provide respiratory management of an extremely preterm infant with chronic lung disease	Patient care Clinical teaching	Direct observation Self assessment	MK, PC
Know neuroimaging screening guidelines for a premature infant	Patient care Clinical teaching	Direct observation Self assessment	MK, PC, SBP
Incorporate advanced neurodiagnostic modalities into care of preterm infant	Patient care Clinical teaching	Direct observation Self assessment	MK, ICS, SBP
Provide counseling to parents of a preterm infant about prognosis based on individualized data	Patient care Clinical teaching	Direct observation Self assessment Directed reading	ICS, SBP, P
Know various screening recommendations and care guidelines for preterm infants: ROP, thyroid, Synagis, HRIF	Patient care Clinical teaching	Direct observation Self assessment Directed reading	
<b>Goal 3. Learn the care of a term newborn with hypoxic respiratory failure</b>			
Know the permissive ventilation strategy for an infant with congenital diaphragmatic hernia	Patient care Clinical teaching	Direct observation Self assessment	
Manage a patient with PPHN, know blood gas targets and how they differ from preterm goals	Patient care Clinical teaching	Direct observation Self assessment	
Understand what constitutes medical maximal support and know the criteria for ECMO support	Patient care Clinical teaching	Direct observation Self assessment	
<b>Goal 4. Learn the care of an infant with congenital heart disease</b>			

<b>Resident Objectives:</b>	<b>Instructional Strategies</b>	<b>Assessment of Competence</b>	<b>ACGME Competency Goals</b>
Differentiate ductal dependent lesions based on need for ductal patency to maintain systemic vs. pulmonary blood flow	Patient care Clinical teaching	Direct observation Self assessment	MK, PC
Care for an infant with a ductal-dependent lesion: know how to assess for and manage pulmonary overcirculation	Patient care Clinical teaching	Direct observation Self assessment	MK, PC
Care for an infant with a non-ductal-dependent lesion, know criteria for discharge without surgery and follow-up needs	Patient care Clinical teaching	Direct observation Self assessment	MK, PC, SBP

PBLI = practice based learning and improvement

ICS = interpersonal and communication skills

P= professionalism

MK= medical knowledge

PC= patient care

SBP = systems based practice