Santa Clara Valley Medical Center (SCVMC) Neonatal Intensive Care Unit (NICU)

**Rotation Contacts**
**Rotation Director:** Sudha Rani Narasimhan, M.D. email: SudhaRani.Narasimhan@hhs.sccgov.org
**Associate Director:** Monica Stemmle, M.D. email: Monica.Stemmle@hhs.sccgov.org

**Administrators:** Evelyn DeLosReyes phone: 408-885-5420

**Other useful numbers:** Main Hospital - 408-885-5000 NICU - 408-885-6428

**Introduction**
The rotation at Santa Clara Valley Medical Center NICU has been and will continue to be an integral part of the LPCH pediatric residency training program. The rotation exposes resident physicians to high quality Level I-II newborn critical care as well as to a multitude of high-risk deliveries as part of a busy obstetrical delivery service. In 2006, almost 6000 infants were born at Valley Medical Center making it the #1 Public hospital for number of live born infants in the State of California, and in the top 10 for all hospitals in the State. More recently deliveries approach 5000 per year.

Neonatology remains at the forefront of pediatric research and is a leader in the integration of research and clinical care, as well as evidence-based medicine. Our mission is to provide the highest quality of care to all babies delivered at or transported to Santa Clara Valley Medical Center, regardless of ability to pay, while providing the highest-quality educational experience for LPCH residents.

We believe the population whom we serve and the diverse pathology presented at SCVMC have given LPCH residents excellent exposure to basic and complex neonatal problems. Our NICU curriculum will enrich your neonatal knowledge and technical skills. We are excited to welcome you as a member of our NICU family.

**Weekly Schedule**

<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>0600-0800</td>
<td>Pre-rounds</td>
<td>Pre-rounds</td>
<td>Pre-rounds</td>
<td>Pre-rounds</td>
<td>Pre-rounds</td>
</tr>
<tr>
<td>0815-0930</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0930-1030</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1030-1130</td>
<td>Rounds</td>
<td>Rounds</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 1130-1200 | **Clinical Rounds**
|           | discuss all pts admitted/discharged within week. | **Radiology Rounds**
|           | NICU Conf rm    | NICU conf rm |              |              |
| 1100-1200 | Patient Care    | Patient Care  | Patient Care| Patient Care   | Patient Care|
| 1200-1300 | Noon Conference | Noon Conference| Noon Conference| Noon Conference|            |
| 1300-1700 | Patient Care    | Patient Care  | Patient Care| 1330-1530      | Patient Care|
|           | **Multidisciplinary Rounds** |            |             | **Radiology Rounds** |            |
| 1700     | Sign-out/evening rounds | Sign-out/evening rounds | Sign-out/evening rounds | Sign-out/evening rounds | Sign-out/evening rounds |

**Rotation Specifics**
**General**
The neonatologists at Valley Medical Center provide 24/7 comprehensive neonatal coverage at SCVMC. The mission statement for the hospital includes a commitment to care “regardless of ability to pay”. The division oversees tertiary care and 24/7 high-risk newborn services for almost 10,000 live born infants per year. The neonatologists also offer consulting services at St. Louise regional Hospital in Gilroy. The NICU at VMC is further supported by several neonatal hospitalists, neonatal and pediatric nurse practitioners, and a huge team of nursing and allied professional staff.

Updated 7/17/2013
NICU Faculty and Staff

Attending Neonatologists
Balaji Govindaswami, MD, MPH
Chief, Newborn Medicine,
Director, VMC Regional NICU
Director, High Risk Infant Follow-up

Dongli Song, MD, PhD
Associate Chief, Newborn Medicine
Director, Newborn Clinical Research
Director, Newborn Neuroprotection

Glenn DeSandre, MD
Director, Neonatal Respiratory Care & Transport

Priya Jagatheesan, MD
Director, Well Baby Nursery
Director, Newborn Data Management

Sonya Misra, MD, MPH
Director, Newborn Screening Program

Director, Neonatal Outreach & Community Education
Christina Anderson, MD
Director, NICU Quality Control
Sudha Rani Narasimhan, MD, IBCLC
Director, Lactation Program
Director, Neonatal Educational Program
Sunshine Weiss, MD
Director, Neonatal Informatics

Attending Hospitalists
Monica Stemmle, MD - Director
Susan Abraham, MD
Nicole Baier, MD
Jeffrey Walker, MD, PhD

Nurse Practitioners
Wei-Fen Den, CNNP, CNS
Jennifer McAuley, CNNP, CNS
Elona Menge, CNNP, CNS
Adebola Olarewaju, C-PNP, MSN

BRIDGE & HRIF Coordinator
Rupalee Patel, C-PNP

NICU Data Management
Madhu Manani, RNC
Ellen McKee, RN

NICU Manager
Korinne VanKeuren, RN, MS, C-PNP-AC

Clinical Nurse Specialist
Sharyn Frentner, RNC

Lactation Specialist
Alga Kifle, RN, IBCLC

Transport Neonatal Coordinator
Debra Glusker, RN

Staff Developer
Lynn Showalter, RN

Neonatal Social Workers
Amelia Lum, LCSW
Vanessa Padilla, LCSW

Orientation
On the first Tuesday of the rotation, there will be an orientation introducing the various aspects to the multidisciplinary team in the NICU. This will occur from 12-3pm, during which time the NNPs will cover deliveries and the attending neonatologist for the resident team will cover the patients. Orientation will include introduction to the delivery room, equipment set up, documentation, nutrition in the NICU including lactation, discharge planning, nursing expectations, and will review resources available in the NICU. Resident hands-on experience is encouraged and expected. All residents should be NRP certified prior to this rotation.

Teams
Two neonatal teams care for patients in the NICU and the patient load in the unit is divided as evenly as possible between the two teams. The Cardinal Team is the resident team comprised of a medical student, 2 senior residents, and an attending neonatologist. The Shark Team is the nurse practitioner team, which is comprised of at least one neonatal nurse practitioner and an attending neonatologist. At times there may be a 2nd NNP or a pediatric hospitalist helping for the day.

Admissions
Admissions go to the admitting team of the day. Admitting days alternate each 24hr period beginning and ending at 8 am. Patients admitted to NICU on Resident Call Nights should remain on the resident team. Patients may, from time to time, be redistributed if the patient census for each team becomes overly imbalanced.

Updated 7/17/2013
Attendings
Attendings rotate daytime services every 2 weeks. Residents will rotate with at least 2 different neonatologists during their rotation. A neonatologist or senior hospitalist is always on call in house with the resident and home call neonatologist available to come in for specific situations. Residents care for all babies (Shark and Cardinal team) overnight. Residents are first call for all patients in the NICU at night. Residents should take this opportunity to function independently, knowing that an attending is available for back-up. Clarify each night how the attending wants to be called and expectations for night. There is also a home night call neonatologist who is not in-house; however, they are happy to come to the unit if the situation warrants their attendance. There is a unit policy in effect for situations for when a neonatologist must be present in the unit.

Morning Rounds
Morning rounds begin 8:30 am daily. Exception: Wednesdays approx. 9am (after Pediatric GRAND ROUNDS-begin at 8:15am in the basement conference room of VSC-all residents are expected to attend)

Evening Sign-out Rounds
Evening rounds begin at 5 pm. Rounds are to be brief, problem focused of any acute events and any labs results that need to be followed.

Clinical Rounds
Clinical rounds are on Tuesdays at 10:30am. All patients admitted to the NICU within the previous week will be discussed. All discharges will also be discussed. A brief update about the current in patients will be given. The residents are responsible for presenting their patients during clinical rounds.

“Midnight Rounds”
These rounds are intended to update the on-call team regarding the status of the infants in the NICU at night as well as to address any issues regarding the care of patients for the night staff. These usually can begin at ~11:30 pm and are again to be brief and focused. A complete systems approach is not usually necessary for stable infants but may be useful for complex patients.

Delivery Room Attendance
We have a very busy and active delivery service approaching 5000 deliveries per year. The NICU covers all high-risk deliveries. The NNP team will generally cover the deliveries during the resident team rounds: approx. 8:30am - 11am. During multiple deliveries it may be necessary for the resident team to break rounds and cover the additional delivery. The residents are expected and encouraged to attend all high-risk deliveries that take place before and after resident team rounds. Residents will be supervised the first week at deliveries. Keep track of all deliveries you attend the first week of the rotation and discuss with your service attending to make sure you are getting the necessary experience to be able to attend deliveries on your own. A delivery note must be written by the resident after each delivery attended

Radiology Rounds
Radiology rounds take place Mondays and Fridays at 11:30am in NICU conference room. These are rounds conducted by both NICU teams and a radiologist. These rounds are a great educational experience and should be attended by the residents. Individual team members should review all imaging studies on a daily basis.

Multidisciplinary Rounds
Multidisciplinary rounds take place on Thursdays from 1:30-3:30pm. This is a great opportunity for residents to see all aspects of patient care as well as detailed involvement/interaction of specialties including physical therapy, nutrition, social work, case management (preparation of discharge materials/equipment), and CCS (California Children Services). Residents are expected to participate.

Resident Education Series
Informal lectures given by the attending physicians occur throughout the rotation depending on the census (including during night call). These lectures are didactic in nature and will be focused on core topics in neonatology.

Procedures
Every effort will be made to allow resident housestaff to perform procedures. Procedure opportunities would include PIV placement, umbilical line placement, endotracheal intubation, administering CPAP, bag-valve-mask ventilation, and neonatal resuscitation including set-up. See below under skills/procedures.
Ophthalmology Exams
All premature infants should have routine eye exams to assess for ROP-retinopathy of prematurity. The eye exams occur on Tuesdays and are done by Retcam. Patients to have eye exams are listed in the Eye Book at the front desk. The patient is listed on the date the eye exam should take place. Check with attending physician regarding current recommendations for eye exams and list your patients in the eye book. Results are entered as a point of care note.

Rooming In
We have 2 separate parent rooms available for our parents to spend the night with their baby prior to discharge. This is a wonderful opportunity for our parents, particularly first time parents and parents of premature infants to provide care to their baby all night and still be close-by to nursing should questions arise. If you have a parent that is interested in spending the night, please check the rooming in book located at the front desk to see if a room is available on that particular night.

Resident Roles and Responsibilities

Please arrive in the morning with time to pre-round on existing patients and any new admissions, no earlier than 6am, no later than 7. Pre-rounding should include: A review of the nursing flow sheet, an update on status from the bedside nurse, an examination of the patient, and review laboratory data and x-ray information.

Medical Charting: A daily progress note should be written on each patient PRIOR to rounds. Please include subjective and objective information in the note. The ASSESSMENT and PLAN portion of the note should be written to the best of the residents’ ability and signed and then addended after rounds if necessary.

Presentation: Presentations on rounds should be problem-oriented and include an assessment and plan. Utilization of flow sheets and labs sheets during presentation is encouraged to save time and avoid “rewriting”.

Patient Load: Each senior resident will be responsible for approximately 1/2 of patients on resident team. Again, the maximum number of patients on the resident team is to be approximately 15, but may temporarily exceed this number before redistribution with the NNP team. The senior will be expected during the first two weeks of their rotation to have carried a certain number of patients with a variety of disease processes. See neonatology curriculum below.

Additional: Seniors will also be expected to have accomplished several procedural skills, if the opportunity is present. In addition, senior resident will have experience performing a prenatal consult and leading a family conference. After the initial 2 weeks, the senior resident will meet with the attending and review goals and expectations.

Additional Responsibilities

Admissions: A detailed history and physical exam performed and documented in chart under history and physical. An H&P need only be completed by one resident physician. Please include patient’s weight, length, OFC and vital signs. A Ballard exam must be performed and recorded on the paper form and the results put in the H&P for each patient.

TPN-Total Parenteral Nutrition- These order sets are available on EPIC and should be written daily on rounds or after rounds

Orders- written any time.

Medication Re-Writes: Medications are reviewed weekly and rewritten as an order.

Discharge Summaries: Discharges at VMC are very involved and often time consuming. It helps to be prepared and start a running document under discharge summary as interim summaries and share the document until discharge. All referral appointments should be listed in this summary, such as Ophthalmology, Synagis, Neurology, Cardiology, lactation, etc. and of course the primary care Pediatrician. Please include newborn screen results, hearing exam results, critical congenital heart disease screening and any immunizations received. Document the discharge weight. Please notify the Pediatrician by telephone of all discharges and follow-up. Fax the discharge summary if the PMD requests this service. Please try to complete discharge summary the day of discharge but no later than 1 day after discharge.

Discharge Orders: There is a standard discharge order set available. It is to include all discharge appointments that need to be made by clerk. See discharge tips sheet in housestaff folder.

Synagis Clinic: Discharge appointments should include an appointment for the SCVMC Synagis Clinic for eligible patients.
Discharge Medications: Discharge medications are to be ordered by the resident physicians 1-2 days prior to discharge. Discharge medications can take some time to prepare, so please be sure to order ahead of time, as this can delay discharge.

PMD Contact: Every effort should be made to contact the PMD or primary health care provider for infants who are to be discharged to home and have had an extended stay in the NICU or have had a complex course. Please try to contact them BEFORE the day of discharge, so appointments can be arranged properly. Whenever in doubt regarding whom to contact, please inquire with the attending physician on service, or better, ask the parents when you see them.

Off Service Summaries: A running discharge summary should be generated as an interim summary.

Nightly Sign Out Sheets: A brief identification, description of active ongoing issues and to do list for the on call person. This sheet is kept current by residents on the computer station at the front desk and should be printed out for the 5pm sign out rounds. This does not go in the medical chart. Please dispose of these papers properly in the shredding bin and do not leave lying around.

Evaluation and Feedback

Feedback

Each resident should seek out feedback several times during their rotation, but no less than every Friday. Please set a time with the attending to sit down and discuss the rotation.

It is the responsibility of both senior residents to provide verbal feedback to the medical students. The resident should solicit feedback from the Intern and medical students as well.

Evaluation

Attendings gather their evaluative comments on each resident together in a single group evaluation via MedHub. Residents will receive this evaluation at the close of the rotation. On an optional basis, nurses may evaluate residents and these nursing comments will be summarized in the MedHub evaluation complete by the NICU attendings at the close of the rotation. Residents will receive evaluation requests for attending neonatologists and hospitalists scheduled to work with the resident team on days or on-call overnight. If you would like to complete an evaluation on an attending but did not receive a request to evaluate that attending, please contact Mrennels@lpch.org. Each resident will receive a peer evaluation request via MedHub for the colleague s/he overlapped with most on the rotation.

Each resident will receive a MedHub request to evaluate the rotation. If you have rotation feedback you would like to communicate directly, please discuss with Sudha Rani Narasimhan or the Chief Residents. Consider undertaking a quality improvement project if you have a particular passion for the NICU and can think of a way to improve the rotation (e.g. gather SCVMC NICU policies for a resident-to-resident binder).

ROUNDING RESPONSIBILITIES

Weekdays: If a resident is not post-call, then they should pre-round and write notes on all of their patients. If their co-resident is post-call, they may also need to present some of the patients/notes for their co-resident on rounds. If a resident is post-call, they should pre-round on all of their patients. On mornings when a resident is post-call, sick patients and new admissions will be rounded on first. The post-call resident should expect to stay until these patients are seen with the service attending and signed out to the remaining resident.

Weekends: If a resident is on-call or post-call, they should pre-round and write notes on all the patients on the resident team. They should stay to provide presentations on new admission or active patients overnight. On mornings when a resident is post-call, sick patients and new admissions will be rounded on first. The post-call resident should expect to stay until these patients are seen with the service attending and signed out to the remaining resident.