



Morgan Stanley
Children's Hospital of New York-Presbyterian
Columbia University Medical Center

**Pediatric Emergency Medicine
Research Assistant Program
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This is a brief overview of the **Pediatric Emergency Medicine Volunteer Research Assistant Program (PEMVRAP)** and details the responsibilities of participating Research Assistants (RAs) in the **Pediatric Emergency Department (PED)** at the **Morgan Stanley Children's Hospital of New York-Presbyterian (MSCHONY-P)**. Please note that **this is a volunteer position**; there will be no monetary compensation for participation in the program. Volunteers are trained to work on all studies currently being conducted in the PED.

Program Personnel:

1. **Associate Director of the PED: Peter Dayan, MD, MSc.**
2. **Program Director: Maria Kwok, MD, MPH**
3. **Program and Research Coordinator: Deborah V. York, MPH**

Program Purpose:

1. Support clinical research activities in the MSCHONY-P Pediatric Emergency Department (PED).
2. Provide a clinical research educational experience for students and other interested parties.
 - A. Provide the student with "hands-on" experience in performing clinical research by actual participation in the conduct of that research.
 - B. Provide an introduction to the basic concept and design of clinical research studies in the medical field.
 - C. Provide direct experience in an acute medical care environment, the MSCHONY-P Pediatric Emergency Department.

Minimum Requirements for Research Assistants:

- **Excellent communication and organizational skills**
- **Good attention to detail.**

- **Be well spoken and professional**
- **Be able to commit to one 4 or 6 hour shift per week over the course of at least one academic semester, preferably for at least a six month block of time.**
- **Attendance at training sessions.**
- **Professional and responsible behavior while in the PED at MSCHONY-P.**
- **Be a premedical student enrolled in a post-baccalaureate premedical program or someone currently applying to medical school.**

Application Process:

1. Forward most current resume in standard, professional format if minimum prerequisites are satisfied. (Attention: Deborah York, dy2148@columbia.edu)
2. Attend a group informational session or an individual interview
3. Submit volunteer application with availability for shifts.
4. Complete orientation process through the Volunteer Dept at MSCHONY-P (Contact Ms. Josie Dominguez at 212-305-9345 or jod9034@nyp.org.)
5. Complete mandatory online training modules.
6. Undergo training on the studies currently being conducted.

The Research Assistant Position

There are many **benefits** to being a RA. In addition to accruing experience in conducting medical research and acquiring familiarity with PED systems and operations, assistants can gain the respect and recognition of the medical school faculty. (This can be a good opportunity to meet individual faculty and get letters of recommendation for medical school or other graduate /professional schools.) RAs also have the opportunity to initiate their own projects, with the mentorship of individual PED faculty. This will allow RAs first authorship for their projects, and an opportunity to present their studies at regional and/or national conferences. In addition, we routinely provide **letters of reference** for those students who fulfill the obligations of the position. The letters of reference provide an explanation of the Research Assistant Program and the involvement of RAs in the clinical patient care environment, as well as involvement with the research studies. In addition, letters are often individualized to each student, depending upon performance, completion of requirements, and individual interests. If you would like to request a letter of reference, see one of the program directors. You may also request letters from individual faculty members if working with them on a specific project.

The **data collected** by the RAs are analyzed and interpreted by the PEM research faculty and their associates in support of a number of ongoing studies and continuous quality improvement projects (CQI). Whether the studies yield a new application to the PED, or long term procedural changes in PEM, the benefits accrue to medical knowledge and ultimately superior patient care. Normally, the level of RAs participation in these clinical studies does not warrant authorship on the resultant publications. However, the assistance and participation of individual RAs is often noted in the acknowledgment section of manuscript. In addition, opportunities do exist for RAs to become more extensively involved in individual projects or to propose their own projects, which could result in eventual authorship for the individual.

Strict attention to detail is paramount in assuring valid outcomes for each study. To that, you must completely familiarize yourself with each of the ongoing studies, before helping to enroll a patient in the respective study.

Professional behavior is essential. At times, the PED staff (or rotating house staff) may appear unaware of your role. The attitude of the RAs toward the professional and paraprofessional staff of the PED will largely determine their success in winning their good will, trust and complete cooperation.

Commitment is important. Once you select your weekly shift slot, we depend on you to honor that commitment. RAs are allowed to change their shifts every academic semester and if absolutely necessary **once** during the course of a semester. You are expected to not only be present during the time of your shift but to also be punctual, professional, pleasant, and enthusiastic. We try to be as flexible as possible because your school responsibilities are a priority. If you find that the required time commitment does not fit with your schedule, it is best to speak with the coordinators and ask to withdraw from the program rather than to be absent or late or to leave your shift before it is finished.

PECARN (Pediatric Emergency Care Applied Research Network)

- PECARN is the Pediatric Emergency Care Applied Research Network, the first federally-funded multi-institutional network for research in pediatric emergency medicine.
- The goal of this network is to conduct meaningful and rigorous multi-institutional research into the prevention and management of acute illnesses and injuries in children and youth across the continuum of emergency medicine health care.

- PECARN includes four Research Node Centers (RNCs) that work collaboratively with Hospital Emergency Department Affiliates (HEDAs) to develop and submit nodal research proposals to PECARN and conduct PECARN-approved research at their respective institutions. The four RNCs are the Academic Centers Research Node (ACORN), the Chesapeake Applied Research Network (CARN), the Great Lakes Research Node, and the Pediatric Emergency Department North East Team (PEDNET). MSCHONY-P is a HEDA in PEDNET.

Some Current Studies Being Conducted in the PED at MSCHONY-P

1. Intussusception

- a. Primary Investigator: Cindy Roskind, MD
- b. Intussusception (pronounced: in-tuh-suh-sep-shun), is the most common cause of intestinal obstruction in children between ages three months and six years. It is also the most common abdominal emergency in children under two. Male babies are affected four times as often as female babies. Intussusception occurs when a portion of the intestine folds like a telescope, with one segment slipping inside another segment. This causes an obstruction, preventing the passage of food that is being digested through the intestine. The walls of the two "telescoped" sections of intestine press on each other, causing irritation and swelling. Eventually, the blood supply to that area is cut off, which can cause damage to the intestine. Although 80 percent of the children who develop the condition are less than 2 years old, intussusception can also occur in older children, teenagers, and adults.¹
- c. Study objective: To determine the test characteristics of the three-view abdominal radiograph series to diagnose intussusception in children presenting to the Emergency Department.

2. Stress and Burden:

- a. Investigators: Hector Vazquez, MD - Peter Dayan, MD, Emmanuel Peña, MA, Deborah V. York, MPH
- b. In caring for acutely ill children, physicians most frequently make decisions based on the medical needs of the patient and appear to pay less heed to the psychosocial components of care. This is unfortunate as the patient-parent-provider relationship and the delivery of healthcare might benefit from the physician understanding of the parent psychosocial characteristics and circumstances. By assessing the caregiver, physicians may understand

¹ http://www.healthsystem.virginia.edu/uvahealth/peds_digest/intussus.cfm

whether a chosen medical management plan is appropriate for the psychosocial circumstances at hand. Three psychosocial characteristics of parents that are under-evaluated in the acute setting and likely affect the relationship between the physician and family are caregiver **stress**, **depression**, and **locus of control**. The latter describes the caregiver's willingness to participate in the decision-making process with health related issues. The febrile infant is a common emergency department presentation that presents a unique circumstance to study the relationship between psychosocial characteristics and hospitalization preference. This is a particularly vulnerable population of caregivers, given the known stresses related to caring for a newborn.

- c. Study Objective: To describe the psychosocial characteristics of guardians who seek emergency medical care for their febrile infant and assess for an association between psychosocial factors and parental preference for hospitalization or discharge.

3. Vitamin K Acu-point Injection for Dysmenorrhea

- a. Primary Investigator Shiu-Lin Tsai, MD (Surname pronounced as tie or Thai)
- b. Dysmenorrhea is a menstrual condition characterized by severe and frequent menstrual cramps and pain associated with menstruation. Dysmenorrhea may be classified as primary or secondary. **Primary dysmenorrhea** starts with the onset of menarche and is usually lifelong; characterized by severe and frequent menstrual cramping, which is caused by severe and abnormal uterine contractions. **Secondary dysmenorrhea** is due to some physical cause and is usually of later onset; painful menstrual periods caused by another medical condition present in the body (i.e., pelvic inflammatory disease, endometriosis²)
- c. Previous studies in China and Italy have shown that Vitamin K injections can be helpful for women who have painful periods.
- d. Study objective: test the feasibility and safety of acupuncture treatment with Vitamin K for young women 14-24 with dysmenorrhea

4. Abdominal Trauma

- a. Primary Investigator: Maria Kwok, MD, MPH
- b. This project aims to develop a decision rule to govern when and when not to order abdominal radiology for children presenting to the ED with trauma to the chest and abdominal areas due to blunt trauma, i.e., in the course of a motor vehicle accident. The study involves a follow up phone call or mail survey.

² http://www.healthsystem.virginia.edu/uvahealth/peds_adolescent/dysmn.cfm

5. Educational Needs Assessment in Children with Asthma in Pediatric Emergency

Department

- a. Primary Investigator: Maria Kwok, MD, MPH
- b. Identify areas of educational need in the management of asthma for caretakers of children with asthma and factors involved in ED utilization for asthma care.
Develop a computer kiosk for caretaker education. Involves survey for caretakers.

Any questions, concerns or comments should be directed to Deborah York at dy2148@columbia.edu.