



a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA

Faculty of Medicine

Department of Pediatrics

Division of Pediatric Emergency Medicine
BC Children's Hospital
4480 Oak Street, Vancouver, BC
V6H 3N1 Canada

Orientation Package

[Updated October 2020]

Residents Contact

PEM Program Administrator

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We are committed to providing you the best possible rotation in Pediatric Emergency Medicine and a once-in-a-lifetime experience!

Welcome!

The Pediatric Emergency Medicine (PEM) rotation at BC Children's Hospital (BCCH) is designed for YOU. We strive to provide the best teaching environment to allow you to gain skills for your career. The rotation is designed based on feedback from hundreds of previous trainees and is meant to give you a rewarding and educational experience.

The PEM division is where you will see the largest variety of pediatric conditions and have the opportunity to improve your diagnostic and management skills. Despite the high variability of pediatric illness due to seasonality, you will likely see the most common pediatric illnesses at any time of the year during your rotation.

Please read all of the information presented in this document to maximize your experience during this rotation and to help you provide the best care to your patients. We look forward to working with you and hope you enjoy your rotation.



Orientation

ID: You'll need an ID to access Pediatric Emergency Medicine's amenities at the new Teck Acute Care Centre (TACC) Hospital. Please check with your home program admin if your current ID has access to the new hospital. They can request to add "general access to BCCH/TACC" from your existing ID (FHA/VCH/PH) few weeks prior to your rotation.

Alternatively, please contact Rhea to pick-up a temporary PHSA ID, but we require a \$50 deposit, in case it gets lost. We will return the deposit upon receipt of the IDs. *Note: IDs should be returned at the end of your rotation. You may drop it off in person or in my mailbox at K4-159.*

Lockers: There are lockers available for you at TACC in the change rooms. Here is the locker information:

Male ED Residents (Men's Change Room)

ED Residents	9	30-00-26
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Female ED Residents (Women's Change Room)

ED Residents	34	30 36 22
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Medical Students (Female/Male Orca 1)

Medical Students	1	35-05-26
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The middle column is the locker number and the last column is the combination. If there is more than one trainee on at the same time (male/female) they will have to share. Please keep the information below for your records.

Computers: It is mandatory for all residents rotating through BCCH PEM to complete the *Cerner PowerChart (eChart): Overview* and the *Cerner FirstNet Training* prior to their scheduled rotation. These online courses can be found on the [PHSA LearningHub \[https://learninghub.phsa.ca\]](https://learninghub.phsa.ca) and can be completed well in advance of your arrival at BCCH.

Note that Residents do NOT need to complete the *Excelleris forms for PowerChart*.

Once you complete the required courses, you will receive your login from Cerner. If you plan to do another rotation with us, we recommend that you hold on to this information. The completion of both online training courses

is mandatory for your PEM rotation, and if not done by the time you arrive, you will not be allowed to begin your rotation.

If you do not already have a PHSA login account, your home Program Assistant (PA) will arrange to have one created for you through the PHSA IM/IT Department (HSSBC), and you will be sent to your account information prior to your rotation.

For those of you that have completed a rotation with us in the past and have been given IT access, you may need to contact the PHSA Service Desk directly at 604-675-4299 to request a password reset.

Please note that all of the above takes time, so we recommend that you take action 2-3 weeks prior to your rotation to ensure a smooth start.

WOWs: There are now Workstations On Wheels available for your use. If you are using a WOW in Orca 1, please do not unplug the central monitor in order to plug in the computer. If the computer needs to be charged, please switch it out with the WOW that lives by room 127 as it is always plugged in and therefore will be charged.

Formal Teaching

Academic Half Day (AHD) occurs every Thursday (usually 8am-12:00pm, except for when our fellows are on their research/NERD block in which case AHD sessions are scheduled on Wednesdays instead, typically during October/November rotations). The AHD sessions are followed by Simulator Sessions, which are mandatory for Junior Residents (please refer to the AHD schedule for your assigned session dates).

We expect you to attend all AHD sessions during your rotation unless you are expected to be at your specialty-specific academic day. Attendance is required even if you have worked the evening shift the night before. In order to allow you to attend the AHD sessions, trainees scheduled on Thursday morning shifts (i.e., Zone 1 or 2 Day shifts) may first go to the AHD sessions and then complete their shift afterwards.

Please make sure to sign your name on the attendance list, as this will be considered in your final evaluation.

Simulator Sessions

We are pleased to welcome you to our high-fidelity simulator program. The Simulator Sessions are very popular and give you an opportunity to practice resuscitation scenarios in a supportive team setting. Your attendance is mandatory for Simulator Sessions during the first and third week of your block. Please let your PA know if you are unable to attend your scheduled session. Our sessions are typically held in E617-619 at the Shaughnessy Building on Thursdays from 1-3pm (except during NERD blocks when sessions will run on Wednesdays).

Evaluations

End-of-Shift Evaluation Form

At the end of your shifts, please provide the attending staff with an **End-of-Shift Evaluation QR Code**. Please record any procedures you performed in the space provided on the form. The electronic evaluation forms summary page are available in every Physician Resources binders located in every ED zone and on the 5-tier desk organizer located in zone 2 near the photocopier machine. **As a mandatory requirement, it is your responsibility to provide your attending with the end-of-shift evaluation form on every shift.** It is a good idea to ask your attending staff for verbal feedback on your performance toward the end of your shift. The Education Lead will review the collection of forms at the end of the rotation in order to complete your end of rotation evaluation.

You will be evaluated on your professionalism, clinical skills, communication skills, knowledge, judgment, team work, use of evidence based medicine. Senior Residents will also be evaluated on their teaching skills and their ability to manage the department.

End-of-Rotation Evaluation Summary

At the end of your rotation, your program will receive an end of rotation summary for shifts and Academic Half Day presentations (if applicable). Before your rotation starts, you will be asked to provide your respective program administrators' name and contact info so we can email the end of rotation summary to your program.

Please note that given the large number of Residents and Medical Students who rotate through PEM, we cannot provide an individual one on one meeting at the end of your rotation.

If you encounter any problems during your rotation, please contact **Dr. Badrinath Narayan (bnarayan@cw.bc.ca)** to arrange a meeting. We will also contact you if there are any concerns about your daily evaluations and will set up a meeting with you.

Rotation Evaluation by Residents

We would also appreciate it if you would complete end of shift evaluation forms for the attending staff. Your feedback allows us to keep improving our teaching!

Scheduling

Pediatric Emergency Medicine is different from other specialties that work primarily during weekday office hours with on-call schedules for evenings and weekends. We run 24 hours/day, 7 days/week, 365 days/year. There are seven shifts per 24 hour period, with double coverage from 09:00-02:00. Your schedule is structured to provide you with an exposure to all types of shifts (Overnight, Zone 1 and 2 (formerly known as Acute) Day and Evening, Zone 3 (formerly known as Urgent) Day and Evening) so that you get a true Emergency Medicine experience.

We are a very popular program with 10-12 Residents from six to eight residency programs, and 4-8 Medical Students in their third or fourth year from UBC rotating through our program each month. We do our best to accommodate other subspecialties' academic days and shift requests from you.

The schedule is made in advance to allow you to plan your PEM rotation at BCCH. During a four week rotation, you will be scheduled for up to 14-16 shifts (depending on the number of residents with us that block), of which at least 4 will be weekend shifts (Saturday and Sunday), and up to 2-4 will be overnight shifts. Thursday morning is our mandatory Academic Half Day (Wednesdays during NERD block).

In order to accommodate your requests during your rotation, you will have to submit them several months before the rotation. The PA will advise you of the deadline for submitting your call shift requests, after which no further requests off will be accepted.

Once the final schedule is made, you will receive an electronic copy to ensure that there are no errors. **Due to the complexity of the schedule we will not accept new requests and only errors will be dealt with.**

Survival Tips on Shift

Any shift swaps must be equitable (i.e., a weekend for a weekend, evening for an evening and between the same level of training). Changes to the schedule will only be approved by our PA in advance, and you must contact your peers directly to make sure the switch works for them. If this is a last minute swap and our PA is unavailable, you must ask for approval from the responsible staff physician in the ER (604-875-2045).

If your request has been approved, please send an e-mail to Rhea.Ignacio@cw.bc.ca so the schedule can be updated.

For Residents who are sick or cannot make it to a shift, please notify our PA (Rhea Ignacio) by email at Rhea.Ignacio@cw.bc.ca **AND** notify the staff physician in Emergency by calling **604-875-2045** so we can get organized for a possible replacement.

For Medical Students, please notify your respective PA's: **(MSIY3)** pediatrics.year3@ubc.ca or **(MSIY4)** pediatrics.year4@ubc.ca and copy Rhea Ignacio Rhea.Ignacio@cw.bc.ca. Also, please notify the staff physician in ED by calling 604-875-2045. You may be required to make up some missed shifts in order to complete your rotation.

What steps should Residents showing COVID-19 symptoms of sickness take?

Residents with flu-like symptoms should not be at work, but should recuperate at home on sick leave. This approach not only allows ill residents to get well, but also protects staff and patients.

A sick Resident who completes a period of self-isolation directed by public health authorities will be provided with documentation clearing them to return to work, when they are recovered and no longer infectious. [Sick Residents who have not been directed to self-isolate should return to work when symptoms cease.](#)

Please refer to the following guidelines on the PGME & BCCDC websites:

<https://postgrad.med.ubc.ca/current-trainees/covid-19-how-is-ubc-faculty-of-medicine-monitoring-the-situation/>

http://www.bccdc.ca/Health-Professionals-Site/Documents/COVID19_HCW_ReturnToWorkDecisionTree.pdf

1. Due to the COVID 19 pandemic please note the following necessary precautions:

Please Wear PPE (masks, eye protection, gowns, gloves) with ALL patients as all patients are assumed to be potential COVID carriers regardless of symptoms. Wash your hands regularly before and after seeing patients.

Please wear masks at all times in clinical care areas outside patient rooms where distancing is not possible.

Please refer to the donning and doffing documents at <http://policyandorders.cw.bc.ca>. We also encourage you to request your attending/a nurse to check your donning/doffing technique once at the beginning of every shift.

You do not have to change your mask and eye protection throughout the shift unless it becomes wet or soiled. Please change your mask after eating / drinking. Gowns and gloves must be changed after every patient. Doff gowns in the room before exiting.

Please keep your phones in a plastic lab specimen bag that can be found at each station.

When you start your shift, please change into hospital provided scrubs (or you can bring your own to change into). Scrubs are available outside the men's locker room by the staff lounge. These can be doffed at the end of the shift and placed into the available dirty linen receptacles.

Please eat and drink ONLY in staff lounge

Please avoid sharing your attending's computer. You're encouraged to use one of the workstations on wheels or computers in ORCA 2 station.

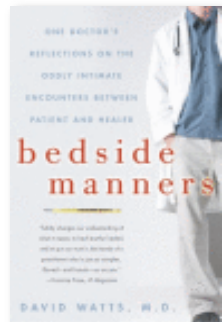
Please do not take the chart into the room. Please complete the chart after interviewing the patient.

Please check in with your staff before going into a negative pressure room.

2. Please wear your hospital identification at all times in order to be recognized. It is a good idea to introduce yourself to your attending and the charge nurse at the start of your shift. You are responsible for bringing your own stethoscope. The department doesn't have stethoscopes available to lend.

3. Communicate with the senior trainees or staff physician in order to make sure excellent and timely care is provided to the patients, and that you are able to receive feedback and learn quickly from one shift to the next.

4. We pride ourselves on outstanding patient care, and the children we treat are the focus of our work. Good bedside manners not only improve interactions with patients, but also advance health professionals' careers. Evidence suggests those who have strong relationships with their patients not only provide better care but are less likely to get sued, and may be more likely to move up the professional ranks. Consider reading *Bedside Manners* by David Watts, M.D. (Three Rivers Press).



5. During your rotation, you will be exposed to a large number of children with infectious diseases. Look after yourself. Wash your hands, wear gloves (and masks where applicable), and keep your stethoscopes clean. If you have not had chicken pox, you are excused from seeing patients with chicken pox.

6. While you will generally see patients after the nurse has evaluated them in the examination room, you may also see the patient earlier if the nursing team is busy.

7. Please read the triage form prior to seeing patient (available on your computer) from which you can take the vitals as a start especially if you see prior to nursing. Make sure to let the charge nurse or bedside nurse know if you will be going to the examination room before the nurse. Make sure you keep the nurse responsible for the patient updated regarding all patient management plans. No patient should be discharged without a full set of vital signs documented.

8. Orders for medications should first be cleared with the attending staff, written in a dose/kg and total dose format, and then given to the nursing staff (not the unit clerk).

9. Most shifts begin and end with hand-over. In general you will participate in this process. If the department is extremely busy and patients are

waiting a very long time, you may be asked to see your first patient rather than participate in handover. Before you leave your shift, it is essential that all patients you have managed and followed-up be handed-over in detail. The staff physician you worked with should be updated and you should be part of the hand-over process.

Want to learn more about handover?

“Emergency department patient handovers should be a seamless process, both for the patient and physicians.” Read more at: Singer and Jase. *Pediatric Emergency Care*. 1996;22(10):751.

10. All patients are assessed and scored (CTAS score) by the triage nurse to determine their acuity of illness and how urgently specific management is required:

- Level 1 – resuscitation, immediate attention
- Level 2 – emergent, treatment within 15 minutes
- Level 3 – urgent, treatment within 30 minutes
- Level 4 – semi-urgent, treatment within 60 minutes
- Level 5 – non-urgent, treatment within 120 minutes

11. When you initially assess a patient, determine the level of acuity and need for treatment before getting too involved in the details of the history. Let the staff physician or PEM Fellow know if patients need immediate treatment (e.g., pain relief, inhalational meds, etc) or if their condition is deteriorating. While you are encouraged to participate, the staff physician or PEM fellow should respond immediately to all critically ill patients in order to provide optimal and timely care.

More information on the Canadian Pediatric Triage and Acuity Scale can be found in [“Implementation Guidelines for Emergency Departments”](http://caep.ca/resources/ctas/) from the Canadian Association of Emergency Physicians [<http://caep.ca/resources/ctas/>]

12. Occasionally you will see things in the ED that can be emotionally difficult as we often deal with critically ill children or children in abusive situations. If you find that you are struggling with anything you have seen, please let one of the attending physicians know so that you can get any help you need. Please also visit <http://residentdoctorsbc.ca/resources/crisis-resources/> for a list of services available if you are having a difficult time with anything you see on your rotation.

13. Follow your patients when they have procedures done. You will hopefully be able to participate in many procedures over the course of your rotation (e.g., casting, suturing, LP's, etc).

14. **Eating:** Please be informed that eating at the team care stations (zone 1, 2 & 3) is strictly prohibited due to infection control and building policies. Kindly use the staff lounge, cafeteria or other designated eating areas.

Equipment

Slit lamps, Tonometer, KleenSpec Light/Battery, Woods Lamp, Ring Cutters are located in the Turtle Bay Clean Supply Room.

Our ultrasound (X-Porte) machine, besides the one in the trauma bay, is now in the Turtle Bay Clean Supply Room.

2 Suture Carts are now located in the alcove across T1-149. If a Suture Cart is required in Orca 1 please pull from Orca 2 and then Turtle Bay. Papooses are located under the stretcher in T1-149.

In our ED at BC Children's Hospital, we sterilize the suturing equipment and then reuse it. This includes things like needle drivers, forceps, scissors, etc. In some other EDs in BC these are all thrown out after the procedure. While you are on rotation with us, though, please remember to leave suturing equipment in the suturing kits when you're done – an ED aide will be called to remove the kit. All needles should be placed in the sharps bin after use, but no other equipment.

When using lidocaine etc. for procedures please discard the remainder of the vial and do not leave it in the suture room.

Ear piece covers and tongue depressors need to be disposed of as they are choking hazards for children.

ED Documentation

In the ED, the patients need a FOCUSED history and physical examination. The ED forms allow you to organize your history and physical exams. Ensure your notes are legible and succinct. Treatments and investigations should be clearly written. You should write follow-up notes when you reassess a patient. Documentation of discharge advice is critical. Please be sure to complete the discharge form and have parents sign it.

Along with the history and physical findings, please ensure the completion of the following on all patients you see:

The time you see the patient (near the top on the left),
Your signature (bottom right),
The time of discharge (bottom right),

Please ask your attending if they would like you to write the diagnosis at the bottom or if they prefer to do it themselves, and

Ensure the patient leaves with a copy of the discharge form (you can sign it and have one of the parents/guardians sign it). Make sure you get a working contact number for the family.

Prescription writing – please put a sticker on the prescription discharge section due to legibility issues. When you sign prescriptions, please print your name CLEARLY and leave a college ID

Further Reading

We recommend:

- ☑ 'Handbook of Pediatric Emergencies' as a start. This is a 'local' book written by the Children's Hospital staff and edited by Dr. Greg Baldwin.
- ☑ 'Textbook of Pediatric Emergency Medicine'
Fleisher et al is a great resource. The first third of the book is complaint based. You can use it to read up on cases as you see them:
- ☑ '**Tarascon Pediatric Emergency Pocketbook**'
Steven G. Rothrock
- ☑ '**Clinical Manual of Emergency Pediatrics Value Pack**
Ellen F. Crain and Jeffrey C. Gershel
- ☑ '**Pediatric Emergency Medicine**
Jill M. Baren, Steven G. Rothrock, John Brennan, and Lance Brown



Websites

Here are some recommended sites that may be helpful during your rotation in Pediatric Emergency Medicine:

Please note, we have a BC Children's Hospital Pediatric ER CME website, www.cmc.bccher.ca. This website contains a current list of pediatric resuscitation courses including the PALS and APLS courses at the BCCH Simulation Center. You can subscribe to the website to receive monthly emails containing a 'PEM pearl' question to take part in free online Pediatric Emergency Medicine learning and for a chance to win a complimentary registration to our Annual Update conference. For details, visit www.cmc.bccher.ca/pem-pearls

PEM-Database: database of useful websites, clinical practice guidelines and updated literature.
<http://www.pemdatabse.org/>

BCCH formulary:
<http://www.pedmed.org>

Canadian Pediatric Society: excellent source of patient handouts and clinical practice guidelines
<http://www.cps.ca>

Radiology Cases in Pediatric Emergency Medicine: great case-based tutorials on approach to pediatric X-rays.
www.hawaii.edu/medicine/pediatrics/pemxray/pemxray.html

American Academy of Pediatrics - Emergency Medicine
http://pediatrics.aappublications.org/cgi/collection/emergency_medicine

Canadian Association of Emergency Physicians
WWW.CAEP.CA

Child Health BC website www.childhealthbc.ca

Educational Goals and Objectives

Medical Expert

- Demonstrate diagnostic and therapeutic skills for ethical and effective patient care.
- Access and apply relevant information to clinical practice.
- Demonstrate effective consultation services with respect to patient care and education.

The student should know:

- Growth and developmental milestones of children.
- Immunization: timing, efficacy and side effects.
- Clinical measurements of dehydration/volume depletion.
- Causes and pathophysiology of fluid and electrolyte disorders.
- Calculation for correction of acid/base abnormalities.
- Pathophysiology of acute pediatric disorders by body system.
- Pathophysiology and pharmacokinetics of toxicological syndromes.
- Pathophysiology of infectious disorders.
- Presentation of common malignancies.
- Access to social agencies for psychosocial disorders.
- Risk factors for child abuse/deprivation/family dysfunction.
- Reporting responsibilities of the Child Protection Act.

The student should be able to:

- Perform a clinical assessment and collect all appropriate information on an ill/injured child.
- Recognize and measure normal and abnormal vital signs.
- Develop differential diagnoses of specific clinical presentations in the infant/child.
- Choose the laboratory and radiological investigations. Appropriate to the immediate need of the critically ill/injured child.
- Initiate management of acute disorders of body systems, toxicological syndromes, and infectious disorders.
- Initiate management of child abuse/deprivation/family dysfunction.

<p>Technical skills:</p> <p><u>Observe:</u></p> <ul style="list-style-type: none"> · Chest decompression · CPR/airway management · Fracture reduction and immobilization · Gastric lavage · Intraosseous access 		<p><u>Perform:</u></p> <ul style="list-style-type: none"> · Lumbar puncture · Venous access · Wound management · Simple suturing · Casting
<p><u>Communicator</u></p> <ul style="list-style-type: none"> · Communicate effectively and compassionately with the patient and family. · Establish therapeutic relationships with patients/families. · Obtain and synthesize relevant history from patients/families/communities. · Discuss appropriate information with patients/families and the health care team. 		
<p><u>Collaborator</u></p> <ul style="list-style-type: none"> · Understand the importance of a multidisciplinary team and interact effectively with physicians, nurses, and other health professionals. · Consult effectively with other physicians and health care professionals. 		
<p><u>Health advocate</u></p> <ul style="list-style-type: none"> · Identify the important determinants of health affecting patients. · Contribute effectively to improved health of patients and communities. · Understand various approaches to health care advocacy and policy change. · Recognize and respond to those issues where advocacy is appropriate. 		

<p>Scholar</p> <ul style="list-style-type: none"> · Apply best practice to patient care decisions based on critical appraisal of relevant literature. · Contribute to development of new knowledge. · Demonstrate the skills of self-assessment and self-directed learning by identifying their own areas of improvement and addressing them with resources available. · Develop, implement and monitor a personal continuing education strategy. · Facilitate learning of patients, medical trainees/students and other health professionals.
<p>Professional</p> <ul style="list-style-type: none"> · Deliver highest quality care with integrity, honesty and compassion. · Demonstrate the maturity and responsibility expected of all professionals · Exhibit appropriate personal and interpersonal professional behaviors. · Practice medicine ethically consistent with obligations of a physician.
<p>Manager</p> <ul style="list-style-type: none"> · Allocate finite health care resources wisely. · Understand the basic principles of quality assurance/risk management issues. · Utilize information technology to optimize patient care and lifelong learning. · Utilize resources effectively to balance patient care, learning needs, and outside activities. · Work effectively and efficiently in a health care organization.

Dress Code Guidelines

A dress code gives us a standard for our professional appearance to clients, co-workers and the community. As an organization, it is important to strive for a balance between the need for professionalism and the desire for comfort, cleanliness and self-expression.

The following guidelines are established for all medical trainees working in the BCCH Emergency Department and will help you determine what is appropriate to wear to work.

All clothing must be clean & appropriate for the work area. Scrubs are allowed for work in the clinical setting. You may use your own scrubs. If you do not have them, please contact Rhea.

Pants that are similar to Dockers and/or nice looking dress pants are acceptable. Inappropriate pants include jeans (of any kind), sweatpants, capris, exercise pants, shorts of any kind, leggings and any spandex or other form-fitting pants.

- Inappropriate tops include tank tops, mid-riff, halter, sleeveless, sheer, halter tops, tops with bare shoulders or spaghetti straps.
- When involved with direct patient care, jewelry should be kept to a minimum. For effective hand washing, rings and watches must be removed. Rings often harbor more than an acceptable level of bacteria after hand washing. Rings also put staff and patients at risk for blood borne infections, as they have the potential to scratch and cause holes in gloves.
- Nails should be short, clean, healthy, and free of nail polish. Chipped nail polish and false nails can harbor microorganisms. Nail enhancements such as artificial nails, wraps, tips, acrylics, and gels are not to be worn by health care workers providing direct patient care or handling patient care products. Numerous studies have shown that HCP (Health Care Practitioner) with nail enhancements have more bacteria on their nails both before and even after hand washing.
- Footwear should be clean, in good repair, and have non-skid soles. HCP involved in direct patient care should wear shoes with a closed toe and a closed heel.