



# Just In Time Simulation

## Program Description

### Purpose

The "Just in Time" (JIT) Simulations are designed to provide a simulated educational training experience based on a REAL patient case on an inpatient unit. These 10 minute simulation sessions focus on the most likely way a high risk inpatient may deteriorate (eg: respiratory distress, congestive heart failure, seizure, decreased LOC, hypovolemic shock, septic shock, etc). In addition to primary medical objectives, each simulation session also incorporates core inter-professional teamwork objectives (eg: establishing clear roles, "closing the loop", creating a shared mental model, etc). The overall goal of the JIT simulation sessions is to provide opportunities for the "real life" inter-professional team (including staff, nurses, residents, medical students, STEP team) to learn and practice the knowledge, skills and attitudes required to provide effective and efficient care to our inpatients. Past experience with a similar program at the BC Children's Hospital showed that ~25% of patients whose medical case served as the base for JIT training - actually deteriorated at some point in the same way predicted. The health care team benefitted significantly from having experienced the simulation and the opportunity to "think through" the patient's presenting symptoms and signs, establish a diagnosis, develop an effective treatment plan and together, deliver that treatment to the patient ... "Just in Time!" So - come join us for an exceptionally relevant and realistic clinical training opportunity.

## **Participants**

The “Just in Time” simulation training program is an educational initiative led and coordinated by the Section of Hospital Pediatrics with support from the ACH KidSIM program. The Section of Hospital Pediatrics is integrally involved with identifying and supporting the educational needs and requirements of all our JIT stakeholders including the R4 teaching fellows, R1-R3 pediatric and off-service residents, medical students, nursing staff and all hospital pediatrician staff. Of note: JIT sessions incorporate specific objectives, competencies and assessment required of the junior and senior resident ward rotations and as such these objectives and competencies will form the basis of the JIT curriculum for these participants. The needs and roles of our other inter-professional groups are also important and are being integrated within this framework. To support these functions and responsibilities, hospital pediatrician preceptors partner with R4 teaching fellows to support the design and delivery of each JIT simulation session.

## **Leaders and Preceptors**

The R4 teaching fellows are the functional leaders of JIT teaching sessions. The primary role of the R4 teaching fellow is to identify an appropriate patient case from the teaching team participating in JIT training that week, design a realistic scenario (keeping core objectives and competencies in mind) and lead delivery of the JIT session. These activities are supported by a staff pediatrician preceptor for each session. Eight hospital pediatricians (Drs. Cooke, Davies, Eustace, Grueger, Jackman, Lam, Lemieux and Long), Dr. Adam Cheng (Peds ER) and Dr. Kathy Tobler (PICU) serve as the core physician preceptors for the JIT program (see JIT schedule for a list of the various preceptors). In addition, a nurse educator or respiratory therapist from the KidSIM program supports mannequin set-up, assists with identifying JIT objectives for inter-professional staff and supports planning for debriefing of those objectives.

## **Format and Location**

The day and timing of the JIT sessions are designed around the pediatric residents Tuesday afternoon teaching sessions since: 1) The residents on teaching teams already have dedicated teaching time then, 2) The R4 teaching fellows will have had a chance to develop the draft of the case the Monday before and, 3) the Section of Hospital Pediatrics has preceptor time scheduled on Tuesday afternoons. JIT sessions are conducted twice per block (one session for each teaching team).

Residents and hospital pediatrician preceptors begin Tuesday afternoon sessions with didactic teaching from 12:30 -1:30pm (some of these sessions include dietary, pharmacy, etc). During “Just in Time” training days (half of all Tuesdays), teaching team residents return to their ward duties from 1:30 – 2:45pm. At 1:30, the R4 teaching fellow reviews the JIT case with the physician preceptor and together they make necessary adjustments to the case, review the mannequin set-up and case requirements and refine debriefing goals. The JIT simulation session is conducted from 2:45 – 3:15pm (Units 3 and 4) and from 2:15 – 2:45pm (Unit 2). The JIT session includes a 5 minute orientation, 10 minute case simulation and 15 minute debriefing. It is imperative to stick to a 30 minute time frame for JIT sessions. This time frame is necessary to focus the educational objectives and ensure everyone is able to return to their clinical duties immediately after.

JIT sessions are ideally run in situ, using an available space on the assigned inpatient unit. However, if all patient rooms are occupied, a back-up simulation training room has been booked for all sessions. Please refer to the JIT Calendar for back-up room locations.

## **Program Evaluation**

The pilot phase of the JIT program began in January 2012 and will continue until June 2012. Evaluation of the pilot will occur between April and June and will include two strategies: 1) Review of all JIT session participant evaluations (completed at the end of each JIT session), and 2) Focus groups with each of the core stakeholder groups. We welcome your feedback!

## **“Just in Time” Contacts**

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