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**Introduction:** Pediatric trauma is one of the leading causes of child mortality and morbidity and is a major challenge for healthcare systems worldwide. Treatment of pediatric trauma requires special attention according to the unique needs of children, especially in children affected by severe trauma who require life-saving treatments. It is essential to examine the preparedness of Emergency Departments (EDs) for admitting and treating pediatric casualties.

**Aim:** To develop a model for admitting and treating pediatric trauma casualties in EDs.

Methods: Seventeen health professionals were interviewed using a semi-structured qualitative tool. A quantitative questionnaire was distributed among general and pediatric EDs' medical and nursing staff. Following the qualitative and quantitative findings, another round of interviews was performed to identify constraints, to construct a "Current Reality Tree," and develop a model for admission and management of pediatric casualties in EDs. The model was validated by the National Council for Trauma and Emergency Medicine.

Results: Lack of uniformity was found regarding age limit and levels of injury of pediatric patients. Most study participants believe that severe pediatric casualties should be concentrated in designated medical centers and that minor and major pediatric casualties should be treated in pediatric rather that general EDs. Pediatric emergency medicine specialists are preferred as case managers for pediatric casualties. Significant diversity in pediatric-care training was found. Based on qualitative and quantitative findings, a model for the optimal admitting and managing of pediatric casualties was designed.

**Discussion:** To provide the best care for pediatric casualties and regulate its key aspects, clear statutory guidelines should be formulated at national and local levels. The model developed in this study considers EDs' medical teams and policy leaders' perceptions, and hence its significant contribution. Implementation of the findings and their integration in pediatric trauma care in EDs can significantly improve pediatric emergency medical services.

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## The Illinois EMSC Pediatric Preparedness Checklist - An Innovative Approach to Improving Pediatric Disaster Planning and Preparedness in Chicago

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**Introduction:** The Illinois EMSC Pediatric Facility Recognition Program was implemented in 1998. The objective was to identify the capability of a hospital to provide optimal pediatric emergency and critical care. Beginning in 2004, steps were taken to integrate pediatric disaster preparedness into the facility recognition process.

**Aim:** The goal of this study was to identify strengths and areas for improvement in pediatric disaster preparedness in participating Chicago hospitals.

Methods: The impact of the EMSC Pediatric Preparedness Checklist was assessed during the 2016 Pediatric Facility Recognition hospital site surveys. The following components were surveyed as they relate to pediatrics: Overall Emergency Operations Plan (EOP), Surge Capacity, Decontamination, Reunification/Patient Tracking, Security, Evacuation, Mass Casualty Triage/JumpSTART, Children with Special Health Care Needs/Children with Functional Access Needs, Pharmaceutical Preparedness, Recovery, Exercise/Drills/Trainings. All survey items were extracted, collated, and reviewed.

**Results:** Fourteen Chicago hospitals participated in the survey. Almost all hospitals (93%) surveyed indicated that they consult staff with pediatric expertise when updating their EOP, incorporate pediatric trained mental health professionals into their disaster call lists (93%), and integrate staff with pediatric focus into their incident command system/emergency operation center during a disaster (79%). Almost all of the hospitals (93%) had an infant/child abduction plan and all hospitals (100%) were testing the process at least once per year. Finally, almost all of the hospitals (93%) had incorporated a patient connection program into their tracking and reunification plan. However, not all hospitals included drills for pediatric surge, decontamination, and evacuation. Less than one-third of the hospitals had pediatric components in their alternate treatment site plans. Half of the hospitals did not have pediatric components incorporated into their decontamination plans.

**Discussion:** Integrating the EMSC Pediatric Preparedness Checklist surveys into the recognition process is an innovative approach to improve pediatric disaster planning and preparedness in hospitals.

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## The Illinois EMSC Pediatric Preparedness Checklist Does Impact Pediatric Disaster Planning and Preparedness in Chicago: A Comparison of 2012 and 2016 EMSC Facility Recognition Surveys

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**Introduction:** The Illinois EMSC Pediatric Facility Recognition Program was implemented in 1998. The objective was to identify the capability of a hospital to provide optimal pediatric emergency and critical care. Beginning in 2004, steps were taken to integrate pediatric disaster preparedness into the facility recognition process.

Aim: The goal of this study was to identify the impact of the EMSC Pediatric Preparedness Checklist across time in Chicago hospitals undergoing Pediatric Facility Recognition.

Methods: Chicago hospitals were evaluated during the 2012 and 2016 Pediatric Facility Recognition Program. The following components were surveyed as they relate to pediatrics: Overall Emergency Operations Plan (EOP), Surge Capacity, Decontamination, Reunification/Patient Tracking, Security, Evacuation, Mass Casualty Triage/JumpSTART, Children with Special Health Care Needs/Children with Functional Access Needs, Pharmaceutical Preparedness, Recovery, Exercise/Drills/Trainings. Data from 2012 and 2014 checklist categories were compared and p-values were computed utilizing Fisher's Exact Test. A p-value <0.05 was considered statistically significant.

**Results:** Stockpiling of staging areas or having ready access to resuscitation supplies increased 46% (p < 0.05), testing of pediatric surge capacity in previous 24 months decreased 43% (p < 0.05), maintaining warmed water source for decontamination decreased 43% (p < 0.05), and having familiarity of evacuation procedures in ED, pediatric, and nursery personnel decreased 42% (p < 0.05). Although not statistically significant, the training of pediatric staff with JumpSTART triage increased 59%, EOP containing a pediatric reunification process increased by 36%, the presence of specific staff plans to allow care of dependents increased for children (29%), elderly (32%) and pets (35%), integration of a pediatric component into hospital EOP increased by 29%, and identification of an alternate treatment site for children decreased by 25%.

**Discussion:** Integrating the EMSC Pediatric Preparedness Checklist surveys into the facility recognition process impacts pediatric disaster preparedness and planning, and identifies areas of improvement in hospitals.

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## Lessons Learned from an Obstetrics/Newborn/Neonatal Intensive Care Full-Scale Exercise

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Introduction: Children are frequently victims of disasters. However, gaps remain in disaster planning for pediatric patients. The New York City Pediatric Disaster Coalition (NYCPDC) is funded by the New York City Department of Health and Mental Hygiene (DOHMH) to prepare NYC for mass casualty incidents that involve large numbers of children. Aim: On April 26, 2018, the NYCPDC conducted a first full-scale exercise with the New York Fire Department (FDNY) testing evacuation, patient tracking, communications, and emergency response of the obstetrics, newborn, and neonatal

units at Staten Island University Hospital North. The goal of the exercise was to evaluate current obstetrics/newborn/neonatal plans and assess the hospital's ability to evacuate patients.

**Methods:** The exercise planning process included a review of existing obstetrics/newborn/neonatal plans, four group planning meetings, specific area meetings, and plan revisions. The exercise incorporated scenario-driven, operations-based activities, which challenged participants to employ the facility's existing evacuation plans during an emergency.

**Results:** The exercise assessed the following: communication, emergency operation plans, evacuation, patient tracking, supplies, and staffing. Internal and external evaluators rated exercise performance on a scale of 1-4. Evaluators completed an exercise evaluation guide based on the Master Scenario Event List.

An After Action Report was written based on the information from the exercise evaluation guides, participant feedback forms, hot wash session, and after-action review meeting. Strengths included the meaningful improvement of plans before the exercise (including the fire department) and the overall meeting of exercise objectives.

**Discussion:** Lessons learned included: addressing gaps in effective internal and external communications, adequate supplies of space, staff, and equipment needed for vertical evacuations in addition to providing staging and alternate care sites with sufficient patient care and electrical power resources. The lessons learned are being utilized to improve existing hospital plans to prepare for future full-scale exercise and or real-time events.

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## The Pediatric Disaster Mental Health Intervention: Meeting the Primary Care Special Needs of Children in the Aftermath of Disasters

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**Introduction:** Effects of a disaster on a community's mental health can persist after the physical effects of the event have passed. The pediatric population is often overrepresented in disasters and prone to serious mental health disorders based on their age and parental/community response. Pediatric primary healthcare providers require the psychosocial skills necessary to work in disaster zones and to care for children in disasters.

Aim: Pediatric Disaster Mental Health Intervention (PDMHI) was initially developed in response to Superstorm Sandy's impact on children and their families in New York City. The objective was to develop training for primary care providers in pediatric disaster mental healthcare and to study its impact on the trainees.

Methods: A faculty of experts in pediatric mental health, psychiatry, psychology, and disaster preparedness was convened to develop curriculum. The faculty developed a four-hour intervention to equip healthcare providers with the skills and knowledge necessary to care for pediatric patients with mental health problems stemming from a disaster via evaluation, triage, intervention, and referral.