

Pediatrics at the NIH Clinical Center



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Outline

- Overview of Pediatrics
- Pediatric Consult Service
- Pediatric Care Committee

- Initiatives aimed at optimizing safety:
 - Pre-admission patient screening
 - Protocol screening

History of Pediatrics at the Clinical Center

- Pediatrics has always been integral aspect of intramural research program
- 1994: Opening of first multi-institute inpatient unit designed and staffed for children
- Pediatrics today:
 - 1NW: multi-Institute unit with 22 beds and 14 day hospital stations
 - Multi-Institute pediatric outpatient clinic with 21 patient care rooms
 - 6-Bed pediatric behavioral health inpatient unit

Pediatrics at NIH Clinical Center

- Approximately 1,600 active protocols at NIH Clinical Center, 35% include children
 - About half Natural History Studies
 - About half first studies of new treatments
- 14 Institutes admit children
 - FY 2017:
 - Inpatients: 442 admissions; 3,991 patient days
 - Outpatients: 3,168 patients; 11,133 patient days

Increasing Interest in Pediatrics

- 2018: 164 board-certified pediatricians credentialed at the Clinical Center
 - 2015-2017: 144 -149 pediatricians
 - 2014: 116 pediatricians
- Pediatrics accounts for ~13% of Clinical Center patient activity
 - Increased since 2014 (past 10% CC activity)

Examples of CC Pediatric Studies

NCI

CNS Tumors

■▲ Acute lymphoblastic leukemia

NHGRI

Undiagnosed diseases

Metabolic disorders

NHLBI

■ Aplastic anemia

■ Sickle cell disease

NIAID

Atopic dermatitis

■● Genetic disorders immunodeficiency

Autoinflammatory syndromes

NICHD

Endocrine tumors (Cushing Disease)

Nieman Pick

Adrenal disorders

Obesity

NIDDK

Lypodystrophy

NIMH

Autism spectrum

Mood disorders

NINDS

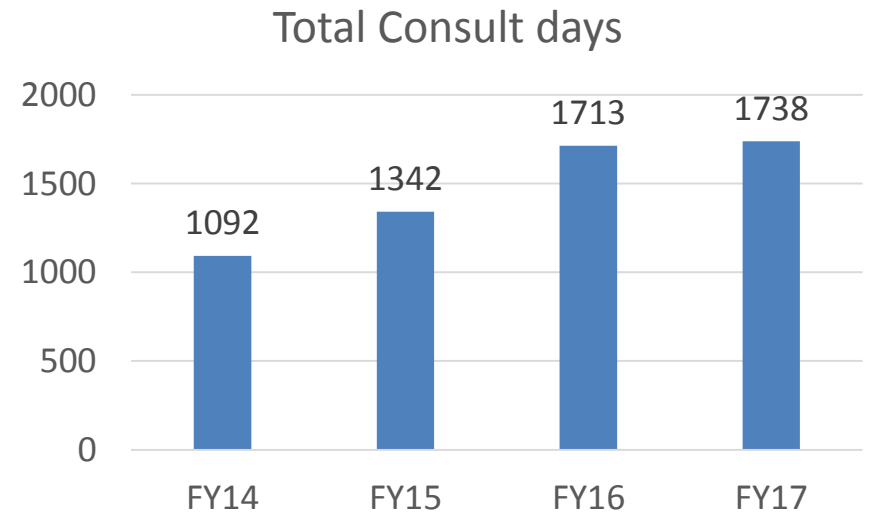
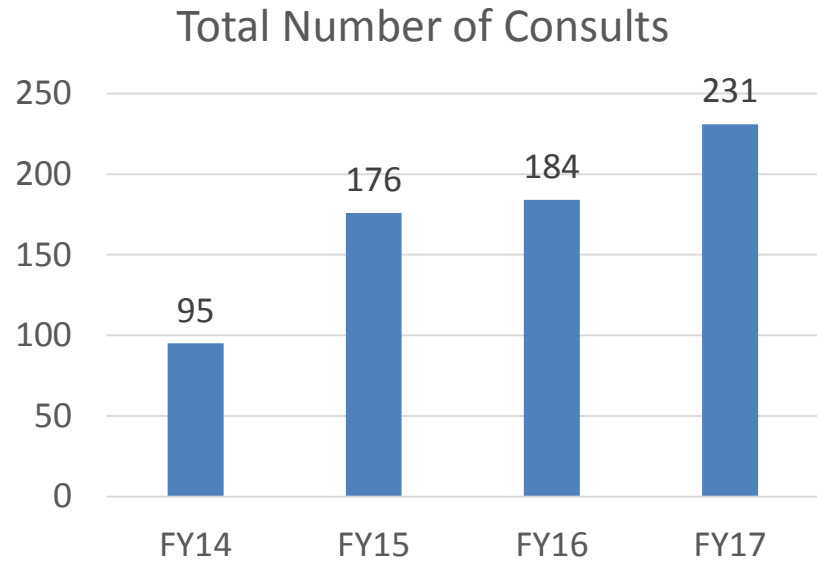
● Neuromuscular disorders and myopathies

- Stem cell transplant
- Gene therapy
- ▲ Cellular Immunotherapy

Pediatric Consult Service

- 2 pediatricians, 2 pediatric nurse practitioners
- Resource for any investigator who needs assistance with the care of pediatric patients
- Available for inpatients and outpatients
- May request a one-time consultation for an acute pediatric problem or ongoing consultation for help in managing chronic conditions
- Procedure consults (i.e. lumbar puncture)
- 1NW: round with teams
 - NIAID: 1st call for patients (integrated into team)

Pediatric Consult Service Activity



Interdisciplinary Oversight: Pediatric Care Committee

- Clinical Directors designee/Senior Investigators from Institutes with pediatric research (NCI, NIAID, NICHD, NHGRI, NHLBI, NINDS, NEI, NIMH, NIDDK, NIEHS, NIAMS, NINR)
- Physician and/or non-physician representatives from CC Departments (Anesthesiology, Critical Care, Nutrition, Pharmacy, Radiology, Rehabilitation Medicine, Social Work, Spiritual Ministry); Pediatric Nursing; CEO of the Children's Inn
- Advise the MEC and the CEO, CC regarding CC pediatric programs and recommend policies and procedures related to all aspects of pediatric care in the CC
- Serve to improve coordination among the Institutes, Centers and CC Departments involved in the delivery of pediatric care

2017-18 Pediatric Care Committee Activities

- Prompt administration (<1 hour) of antibiotics for febrile neutropenia or sepsis
- Suicide prevention screening
- Patient transports
- Walter Reed National Medical Center partnership: Pediatric subspecialists
- Children's Inn updates
- MAS Policies: Pediatric visitors
- Pre-admission screening
- Electronic pre-admit
- Monitored beds

Medical Executive
Committee

Pediatric Care
Committee

Medication
Occurrence
Report
Evaluation
(MORE)
Subcommittee

Ad hoc
Working
Groups

Committee representation

- Patient Safety Clinical Practice & Quality (PSCPQC)
- Standardization Committee
- CPR Committee
- Patient Safety & Clinical Quality Committee (PSCQ)
- Surgical Administrative Committee
- Pharmacy & Therapeutics Committee
- Hospital Infections Safety
- Bereavement
- Patient Safety & Quality Committee (Unit based)

Challenges in Pediatric Clinical Research

- Optimize patient safety while providing an environment for the conduct of cutting edge research
- Multiple stakeholders and diverse protocols
- Limited pediatric-specific subspecialty services

Mitigating Risk: 2016: New Screening Process

- Protocol review
 - Determine if pre-admission patient screening recommended (n=176)
- Pre-admission patient screening
- 6 month pilot presented to MEC (April-Oct 2016)

Pre-admission Pediatric Screening

***Note: Clinic (1HPEDS) visits are limited to evaluations that are within the scope of a pediatric office setting (e.g., physical exam, non-invasive studies, phlebotomy), and do not pose risk of an acute event.**

Diagnosis (if known) or presenting issue: _____

Acute issues? _____

Current medications: _____

Medical History (check all that apply):

No Yes

Premature birth: if yes, gestational age _____

Birth or post-natal complications: if yes, describe _____

O2 support: if yes, describe _____

Tracheostomy

If yes, Contact the Trach Consult Service before arrival and plan for a consult at the beginning of the visit.

Ventilator/CPAP/BiPAP

If yes, Contact the ICU before arrival.

Seizures: if yes, describe _____

Hypotonia: if yes, describe _____

Nutritional support or feeding tube: if yes, describe _____

Hospitalization within past 3 months: if yes, describe _____

Other significant medical history _____

Reason for visit/admission (check all that apply):

Initial Evaluations _____ Follow-up _____ Procedure _____ Treatment _____

Planned Procedure(s)/Intervention(s) and date(s): _____

Anesthesia or sedation planned? No Yes

Dates: _____ Location (*circle*): OR 3SWN Radiology

If yes, Contact the Anesthesia department before arrival and plan for a consult at the beginning of the visit.

Patient Screening Results: April 2016-April 2018

- 252 patients reviewed
- Approved, no changes: 199 (79%)
- Approved with changes: 47 (19%)
 - Schedule modifications: 15
 - Pediatric consult on arrival: 19
 - Change in location: 13
- Deferred: 2
- Denied: 4
- 11 patients or populations approved after interdisciplinary meetings or Failure Mode and Effects Analysis (FMEA)

Impact on Patient Safety

- Enhanced clinical information obtained during planning process
 - Increased pre-visit information and communication between research team, Pediatric Consult Service and Nursing
 - Identified issues previously unknown to primary team
 - Calls to family before travel identified needed updates to visit plan

Prospective Screening of Protocols Including Children

- Prior 2017: Clinical Directors sending protocols to Pediatric Consult Service for review
- 2017-2018: New system for protocol review: Protocol Resource Impact Assessment (PRIA)
 - Electronic system for early review of protocols by CC Departments
 - 28 Protocols reviewed by Pediatric Consult Service
 - 3 with significant feedback involving other departments
 - 1 Failure Mode and Effects Analysis (FMEA)

Summary

- NIH Clinical Center has a comprehensive pediatric program that serves multiple Institutes with diverse patient populations
- Addressing the challenges of optimizing patient safety in a complex research environment is an ongoing process and takes a team approach
- Important FY2018 initiatives: streamline screening future protocols/patients (electronic pre-admit) and establishment of monitored beds unit