Developing an Interactive Resident Training Curriculum on Healthcare Transitions and Complex Medical Conditions Arising Out of Childhood for Pediatric and Internal Medicine Trainees

APPD 2019 Annual Spring Meeting

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Welcome!

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We have no disclosures
Objectives

- Recognize the importance of educating pediatric and internal medicine trainees on comprehensive healthcare transition for all youth and caring for children and young adults with chronic conditions arising out of childhood.

- Design a needs assessment to identify trainees' knowledge gaps in healthcare transitions and complex medical conditions arising out of childhood.

- Design an interactive lecture series focused on healthcare transitions and complex medical conditions arising out of childhood.
I. Why are these topics important?
II. What is done at your institution?
III. Designing a self-assessment
IV. Brainstorming: Starting this at your institution
V. Overview of lecture series at Michigan Medicine
VI. Bringing the lectures to life
VII. Going beyond the lecture series
VIII. Resources
Health Care Transitions (HCT)

• Transition is:

  Purposeful and planned movement of adolescents and young adults with chronic physical and medical conditions from child-centered to adult-oriented health care systems

• National importance:
  • Healthy People 2020 Health Objective
  • Measurement of Health by Maternal and Child Health Bureau
Youth with Special Health Care Needs (YSHCN)

- Chronic physical, developmental, behavioral, or emotional condition
- Require health and related services beyond that required by children generally

- 90% of children with chronic healthcare conditions survive to adulthood
  - 750,000 children annually in the US
Why is this important?

Significant negative effect on morbidity, mortality, and quality of life for adolescent with special needs when transitions are done poorly
An Area of Need

- National Survey of Children with Special Healthcare Needs:
  - 40% of YSHCN met core transition outcomes
- Limited transition education during residency
  - 4.2% of physicians in one survey study

Over the last 10 years, several national efforts have been made to promote high-quality healthcare transition for both healthy youth and YSHCN; however, several barriers have been identified

Patient Barriers
Family Barriers
Financial/ Legal Barriers
Provider Barriers
Provider Perspective: What are the Barriers?

Time
Subspecialist Coordination
Funding/Reimbursement
Support Staff

Knowledge

– Lack of skills and knowledge
  » healthcare transition process and planning
  » available community resources that support the YSHCN population during this time of need
  » complicated conditions arising from childhood
What interested **you** in this workshop?
Current Practices

- Is transitional medicine/complex care in your curriculum?
  - How is it currently taught?
  - What is included?
  - How was it instituted?
  - Areas for improvement?
  - Resident response to curriculum?
- If not, is there interest?
  - Where could it be added?
Needs assessment and curriculum design
Basics of assessment

- **Assessment = performance of learners**
  - Needs: prior knowledge (baseline)
  - Formative: feedback throughout course
  - Summative: expected level of performance
Designing a course based on assessment

Desired result

• Learning goals and objectives

Expected performance of goals

• Assessment strategies to determine

How help learners reach goal

• Design learning activities
Transition medicine/complex care curriculum

- Improve knowledge on transitions and complex care
- Learning objectives based off published objectives
- Survey needs assessment
- Presentations, one-pagers
Methods for identifying knowledge gaps

- Survey
  - Quick tips
- Focus groups
- Clinical scenarios
- Outcomes data
Transition Medicine Needs Assessment survey

- Qualtrics survey sent to medicine and pediatric residents
  - Likert scale responses for comfort level
- Pre-intervention
- Length:
  - IM: 17 components
  - Pediatrics: 22 components
Examples of questions for pediatric trainees

• Please identify your level of comfort with the following competencies related to health care transitions for healthy children and those with special health care needs
  • Providing appropriate guidance to help transition adolescents from pediatric to adult healthcare
  • Knowing the key steps in a planned healthcare transition
  • Identifying the financial and legal factors associated with transitioning an adolescent with special healthcare needs
  • Distinguishing between government benefits (i.e., SSI, SSDI)
  • Discussing decision-making and guardianship with a patient and family
Example of pediatric needs data

Resident comfort level caring for cancer survivors and transplant recipients

Understanding the risks, side effects, and late sequelae associated with various chemotherapeutic drugs

Knowing where to find resources available for providers caring for children and adolescent cancer survivors

Recognizing immunosuppressive medications and side effects

Understanding the prognosis for a patient who has undergone renal transplantation
Course Blueprint Example – Transitions of care for the internist

**Overall objective**

- Improve transition knowledge

**Course goals**

1. Improve comfort level of caring for adults with chronic pediatric conditions
2. Improve knowledge of aspects of successful pediatric to adult care transitions

**Objectives**

- Recognize common conditions of SB
- Know health maintenance for patients with Trisomy 21
- Assess and manage late sequelae of pediatric cancer
- Implement steps of successful transition to adult practice
- Understand the financial aspect of transitions
- Legal factors with transitions and guardianship

**Learning activities**

- PowerPoint presentation
- PowerPoint Presentation
- One page resource guide
- PowerPoint
- Introduction lecture
- Website and online book resource
- Presentation from social work
- Discussion of government benefits
- Presentation with social work
Summative Assessment

- Miller’s Framework
  - Outcomes data
  - Fill in the blank response
  - Teach to others
  - Objective – Multiple choice pre/post testing
  - Subjective – personal knowledge gain
Brainstorming: Starting this at YOUR institution!
Michigan Medicine Lecture Series

- Lecture Topics
- Presenter(s)
- Audience
- Venue
- Frequency
Lecture Topics

• Healthcare Transitions
  – Introduction
  – Financial and Legal Concerns

• Caring for Children with Special Healthcare Needs
  – Spina Bifida
  – Down Syndrome
  – Intellectual Disabilities
  – Long Term Survivorship
  – Solid Organ Transplant
  – Technology Dependent
Presenters

• Lectures created and presented by Medicine-Pediatric residents with guidance from a faculty mentor
Audience

• Pediatric Residents
• Medicine-Pediatric Resident
• Medicine Residents
Venue

- Pediatric morning and noon conferences
- Internal Medicine ambulatory morning report
Frequency

• Goal: Each lecture to be given once a year
Pediatric Lecture Series

1. Transitional Medicine: A Pediatric Perspective
2. Caring for Children with Special Health Care Needs: Spina Bifida
3. Caring for Children with Special Health Care Needs: Intellectual Disabilities
4. Long-Term Survivorship: Life after Childhood Cancer
5. Caring for Children with Special Health Care Needs: Solid Organ Transplant
6. Children with Special Needs: Technology, Mobility, and More
7. Financial and Legal Issues with Healthcare Transitions
8. Parental Experiences: Life with a Child with Chronic Illness
① Transitional Medicine: An Internist Perspective
② Caring for Adults with Childhood Illnesses: Cerebral Palsy, Mobility Impairment, Nutritional Support, and Technology Dependence of the Nervous System
③ Long Term Survivorship: Life after Childhood Cancer
④ Caring for Adults with Childhood Illnesses: Spina Bifida and Down Syndrome
⑤ Social-Legal Issues for Adults with Childhood Illnesses (Access to health insurance, guardianship, and more)
⑥ Caring for Adults with Childhood Illnesses: Intellectual Disabilities
Michigan Medicine Healthcare Transitions and Complex Medical Conditions Arising out of Childhood Lecture Series

Pre-Assessment
September 2017

Post-Assessment
June 2019
Bringing the Lectures to Life!
Going Beyond a Lecture Series
1.) Resident Resources
   - One-pagers
   - Addition to House Officer Survival Guide

2.) Cross-Over Lectures
Creating “one-pagers”

• Summary of what was discussed in the lecture
• Highlights take away points for that topic
• Can easily be saved as reference for use when needed
## Solid Organ Transplant Fact Sheet

### Definition
The replacement of a nonfunctioning solid organ such as kidney, liver, or heart with an organ obtained from a cadaver or living donor.

### Epididymis
The majority of pediactric patients living with a kidney transplant have more than 1000.

### Immunosuppressive Medications
- **Calcineurin inhibitors** (tacrolimus, cyclosporine)
- **mTOR inhibitors** (sirolimus, everolimus)
- **Antimetabolites** (mycophenolate, azathiopepine)
- **Cyclosporine A**, **azathioprine**, **mycophenolate mofetil**, **tacrolimus**
- **Steroids**: **corticosteroids**, **cyclosporine, azathioprine**, **prednisone**

### Sequelae of Disease/Transplant
- **Infection**: opportunistic infections, viral infections, bacterial infections
- **Hypertension**: control with diet, medication
- **Diabetes Mellitus**: **glycemic control**
- **Neurocognitive issues**: in children
- **Decreased quality of life**

### Health Maintenance
- **Annual Dermatology visit**
- **Annual Ophthalmology visit**
- **Annual Gastroenterology visit**
- **Annual Endocrine visit**
- **Annual Renal Transplant**

### Office visit considerations
- **Overview of current medications and recent lab results**
- **Discussion of any new symptoms or concerns**
- **Review of any recent infections or illnesses**
- **Review of any recent hospitalizations**
- **Review of any recent surgeries or procedures**
- **Review of any recent travel**
- **Review of any recent interdisciplinary care (e.g., physical therapy, occupational therapy)**

### Intellectual Disability
- **Definition**: Disability severe enough to require the age of 15 years and demonstrates significant limitations in two or more of the following areas: conceptual, social, and academic/adaptive skills,
- **Impaired communication skills**: expressive and receptive language, reading, writing, math, social skills, and memory
- **Limited conceptual reasoning**: activities, planning, problem-solving, and memory
- **Limited adaptive reasoning**: skills, peer relationships, social behavior, and self-care

### Solid Organ Transplant Fact Sheet

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| Immunosuppressive Medications | - Calcineurin inhibitors (tacrolimus, cyclosporine)  
- mTOR inhibitors (sirolimus, everolimus)  
- Antimetabolites (mycophenolate, azathioprine)  
- Cyclosporine A, azathioprine, mycophenolate mofetil, tacrolimus  
- Steroids: corticosteroids, cyclosporine, azathioprine, prednisone |
| Sequelae of Disease/Transplant | - Infection: opportunistic infections, viral infections, bacterial infections  
- Hypertension: control with diet, medication  
- Diabetes Mellitus: glycemic control  
- Neurocognitive issues: in children  
- Decreased quality of life |
| Health Maintenance | - Annual Dermatology visit  
- Annual Ophthalmology visit  
- Annual Gastroenterology visit  
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- Annual Renal Transplant |

### Office visit considerations
- Overview of current medications and recent lab results
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Addition to RAWRZ guide

• RAWRZ House Officer Survival Guide
  • updated each year

• Last year added “Transition to Adult Care” and “Children with Special Healthcare Needs” section
Cross-over lectures

• Reviewing a case relevant to both internal medicine and pediatrics
  • Example: 20 year old with chest pain
    • Having adult subspecialist attend presentation for discussion and answering questions

• Collaborative Grand Rounds
Future Directions

• Expanding audience to include other residents (ie. family medicine) and medical students
• Residency Interest Group
• Website combining national resources and one-pagers fact sheets to help providers care for youth with special healthcare needs and adults with childhood illnesses
• Structured pediatric and IM electives
  – Healthcare Transitions
  – Complex Medical Conditions Arising out of Childhood
What are other institutions doing?

• Internal Medicine, Pediatric, and Med-Peds residents rotate through transitions clinic during ambulatory block at Duke University Medical Center

• Harvard Crossover Curriculum: Guest faculty from opposite discipline at resident conferences

• Continuity clinic curriculum includes transitions cases at many institutions
Resources
American College of Physicians - Pediatric to Adult Care Transitions Initiative “Toolkit”: https://www.acponline.org/clinical-information/high-value-care/resources-for-clinicians/pediatric-to-adult-care-transitions-initiative
Websites

Got Transition:
https://www.gottransition.org/
Got Transition

- Tools for providers such as handouts and webinars to help with planning a patient’s transition of care

- Resources on other important aspects of care transitions (health insurance, guardianship, educational support)

- FAQs and quizzes for patients
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USB Flash Drive

- Workshop PowerPoint and Handout
- The following lectures from Michigan Medicine’s Lecture Series:
  - Transitional Medicine: A Pediatric Perspective
  - Transitional Medicine: An Internist Perspective
  - Long Term Survivorship: Life after Childhood Cancer
    - Pediatric
    - Internal Medicine
- Examples of One-Pagers
Sources


