

Telehealth Case Studies

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Case-Based Learning

CASE STUDY

Care Planning and Coordinating Transitions from Inpatient to Outpatient Settings:

11-year-old with Multisystem Inflammatory Syndrome in Children (MIS-C) as a result of COVID-19 infection

Kevin Hummel, MD, Daniel Slater, MD, FAAP, Lily Payvandi, MD, Kathleen Huth, MD, MMSc-Medical Education, FRCPC, and Richard C. Antonelli, MD, MS, FAAP

Needs and goals to consider

- Patients with chronic medical conditions or medical complexity who acquire acute illness face challenges in the post-acute care setting.
- Primary care providers (PCPs) caring for patients in this setting are charged with coordinating and managing follow-up care with necessary subspecialists and required testing.
- Telehealth presents an opportunity to create value for clinicians, patients, and their families in the post-acute setting by enhancing access and addressing inequalities of care access, facilitating shared decision-making, supporting remote monitoring, and consolidating follow-up care.
- Leveraging tools and adopted policies put forth by the AAP on the use of telehealth care integration can drive value in the care of patients with chronic conditions.

Suggestions for Pediatric Clinicians and Practices

To align with the American Academy of Pediatrics Council on Children with Disabilities and Medical Home Implementation Project Advisory Committee Policy Statement on *Patient- and Family-Centered Care Coordination: A Framework for Integrating Care for Children and Youth Across Multiple Systems*. (PEDIATRICS Volume 133, Number 5, May 2014):

1. Use telehealth in the post-acute setting to encourage patients/families to be partners in their care and decision-making.
2. Leverage tools of telehealth, specifically telehealth monitoring, to ensure that patient/family have access to information sharing needed across providers and health systems.
3. Provide efficient access to patients/families for careful handoffs of care when transitioning between inpatient and outpatient settings.
4. Ensure that co-management and communication occur among specialists and primary care providers.

Case-Based Learning

continued

Note to the facilitator: This module includes a clinical scenario that can be used to illustrate feasible ways to integrate and adopt AAP policy and recommendations. The scenario can be adapted in a way that best resonates to participants. For example, the patient discussed has a chronic condition that can be altered (asthma) and suffers an acute illness that is currently of high concern (multisystem inflammatory syndrome in children) but the case is representative of any acute illness or exacerbation of chronic condition requiring significant post-acute follow-up care. Facilitators should guide participants to consider the following questions during the case:

- What are the features of an ideal telehealth model to meet the needs of patients with complex or chronic care and their families in the post-acute setting?
- Whose needs should be considered within the team of care integration when using telehealth?
- What tools can be leveraged to drive value to both patients/families/caregivers and providers through the use of telehealth in the post-acute setting? How can virtual remote monitoring drive further care integration?
- How can equity across diverse populations, including race/ethnicity/language/disability (RELD), and rural and urban settings, be maximized through the integration of telehealth care coordination?

Jeremiah

Post-hospitalization of patients with chronic conditions diagnosed with multisystem inflammatory syndrome in children (MIS-C) as a result of COVID-19.

Jeremiah is an 11-year male with a history of moderate persistent asthma and ADHD recently admitted to a referral children's hospital with MIS-C following a two-week hospitalization requiring time in the intensive care unit. He is now discharging with gradual recovery of overall health but persistent deconditioning and need for follow-up with multiple different subspecialists and close monitoring. His follow-up care will include infectious disease, rheumatology, and cardiology, lab work, EKG monitoring and a follow-up echocardiogram, in addition to frequent vital sign monitoring and physical therapy for rehabilitation. His mother, who is a single caregiver and an immigrant from Haiti, cares for Jeremiah and works at a nursing home. She speaks limited English but has been closely involved in Jeremiah's care in the hospital. You have cared for Jeremiah for several years, which has predominantly consisted of well visits and mental health care for ADHD, anxiety and a learning disability, in addition to management of his asthma. His mother calls you and expresses uncertainty and stress about managing his follow-up appointments and testing. She expresses specific concern that she is not sure how she will do this and still return to work and for Jeremiah to be able to return to school. Additionally, Jeremiah has been actively involved in sports, which have aided his ADHD and anxiety, and his mother has concerns about the risks and time to returning to normal activity following acute illness.

- What care **goals** can you identify that a telehealth model could target for Jeremiah, his mother, and his primary care provider?
- Which **aspects** of care integration need to be addressed to optimize Jeremiah's post-acute care management?
- Who are the **team** members who are needed to best coordinate care for Jeremiah?
- What **social determinants of health** (SDoH) should be addressed with both Jeremiah and his mother? Consider parents and/or family caregivers as care team member and the stressors brought up by his mother.

Case-Based Learning

continued

- What **actions** will you take to implement coordination of Jeremiah's care via telehealth?
- How will you **measure** the success of telehealth?
- What **challenges** might be faced in coordinating care via telehealth?

Note to the facilitator: As small groups discuss their responses, consider offering the following probing questions to stimulate discussion:

- When considering the care *team*, probe participants to consider each of the following and their roles on the team:
 - ~ Jeremiah, his family, and support system (relatives, friends, teachers, coaches).
 - ~ Clinicians, including primary care provider, sub-specialists, advanced practitioners, care coordination nurses, and members from case management and social work.
 - ~ Community health workers, as liaisons between health care, social services, and the patients and their families.
- SDoH affect a wide range of health outcomes, including conditions in which people live, work, learn, and play; for example, parental employment and transportation needs may directly impact Jeremiah's follow-up care.
- Care integration recommendations are outlined in the AAP Policy Statement on *Patient- and Family-Centered Care Coordination: A Framework for Integrating Care for Children and Youth Across Multiple Systems* and consider ways that telehealth meets recommendations at a higher value than traditional care.
- To probe for measurement, refer to the *Supporting Pediatric Research in Outcomes and Utilization of Telehealth (SPROUT) Telehealth Evaluation and Measurement* framework below.

Actions may include the following practices in the delivery of care coordination through telehealth services: (3-5 promising practices)

Virtual visits with multiple subspecialists involved.

- Example: Allow virtual visits to occur with only parent as needed for history gathering and updates. This will allow Jeremiah's mother to attend visits while at work and not have to be co-located with him.
- Example: Single virtual visit with entire follow-up team including the needed subspecialists and the PCP to ensure shared information among providers.
- Example: Hybrid model of a virtual visit with the primary care provider with other care members available via real-time texting to the PCP.

Remote monitoring.

- Encourage remote monitoring of symptoms, vital signs, and outcomes be logged virtually, alerting PCPs with alarming measurements.
- This can serve as a trigger for PCPs to involve subspecialists back in care, providing confidence to the PCP in tracking specialty-level metrics but maintaining access virtually to the subspecialist when needed.

Satellite labs/testing not at the children's hospital but in the community.

- Example: Encourage labs, EKG, etc. to be done at PCP or local labs to prevent needing to go in-person to tertiary center.

Case-Based Learning

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Patient reporting of symptoms as they return to daily activities with updates to relevant subspecialists.

- Example: Work with Jeremiah and his mother to allow him to still attend sports participation and being present with the team to aide his mental health, but with guided return to play. Share the return to activity guidance virtually, both available to PCP, schools/athletics, and families, and allow them to guide return to play from a distance.

Optimize relationships with members of the care team that will improve access to care for Jeremiah and his mother.

- Example: Reach out to Jeremiah's school to understand telehealth availability to be able to meet during the day virtually while his mother could join from a separate place.
- Example: Where available, integrate virtual social work or case management team members to work with Jeremiah's mother to relieve stressors related to SDoH.

Create a "return to life" plan with gradually decreasing virtual "check-ins" as Jeremiah and his mother become closer to achieving their post-acute illness goals in terms of symptoms, productivity, and burdens of the hospitalization.

Measure: Utilization of a virtual care plan with patients with chronic conditions or medical complexity who are transitioning from an acute inpatient hospitalization.

Alternative measure for future consideration: *Framework for measurement: SPROUT Telehealth Evaluation and Measurement (STEM) profile.*

- SPROUT is a multicentered collaborative research network dedicated to establishing an evidence base for pediatric telehealth. SPROUT's objectives are to create telehealth research frameworks and resources, provide platforms for dissemination and education of research resources, promote interdisciplinary and interprofessional multisite telehealth research to target gaps in the current telehealth evidence base and maintain a telehealth research database.

Challenges may include:

Access

- Reliable access to broadband capable of using for telehealth visits (including access in a private setting)

Care team coordination

- Availability of crucial team members that may not be traditionally on the care team (social workers, case management)
- Specialists may be in different health systems or institutions, creating challenges to scheduling and coordinating grouped follow-up

Financial/Reimbursement

- Specialists and primary care providers may be in different fund flow models and financial incentives may not align
- Care coordination coding

Case-Based Learning

continued

Virtual Transition from Inpatient to Outpatient Monitoring in Children

<p>Reason for Visit</p> <p>First time virtual encounter for multidisciplinary care team following an acute inpatient admission in a child with underlying medical conditions.</p>	<p>Relevant Clinical Information</p> <p>11-year-old boy with asthma and ADHD admitted for Multisystem Inflammatory Syndrome in Children (MIS-C). He has been followed by infectious disease, rheumatology, and cardiology and now requires follow-up with labs, testing, and vital sign monitoring.</p>
<p>Requested Relationship</p> <p>Subspecialty-primary care provider co-visit virtually to determine follow-up plan and monitoring.</p>	<p>Questions to Be Answered</p> <p>What surveillance is required for Jeremiah's post-acute phase and how can he be monitored remotely via virtual health while incorporating the follow-up needs of all members of his care team?</p>

Case-Based Learning

continued

Action Grid

Goal	Action	Who is responsible	Timeline	Contingency
Determine the appropriate post-hospitalization monitoring/follow up care required by each involved stakeholder.	Virtual visit incorporating all relevant team members, including subspecialists, Jeremiah's support at home, social workers as applicable.	PCP	Within 2-3 days or before hospital discharge (virtually with other team members while still in hospital).	If family does not have a plan for a virtual visit at time of discharge, they should call the PCP directly at 123-456-7899.
Support Jeremiah's return to school and activity and his mother's return to work.	Request to Jeremiah's school to be able to do a virtual visit, log monitoring symptoms from school, to not have to miss for medical appointments. Incorporate his mother's breaks at work as possible times for virtual visits.	Clinic nurse/ PCP/Social worker	Will establish school contact prior to first virtual visit.	Social worker or clinic nurse will confirm with family that discussion was had with the school. Jeremiah's mother will confirm with the team her work schedule.
Utilize remote monitoring to virtually link PCP and subspecialists to optimize access of care.	Incorporate home vital sign measurement, growth, and reporting of symptoms virtually to alert PCP's of concerns. Encourage diagnostic testing at convenient sites (remote labs, retail pharmacies, etc.) to prevent the need of missing school/work to return to Children's Hospital for basic testing.	Clinic nurse	Following first multidisciplinary virtual visit.	If PCP is alerted by clinic nurse of concerning measurements, will establish a follow-up shared virtual encounter with relevant subspecialist.
Create a "Return to Life" Plan.	Outline goals with Jeremiah and his mother for what goals they seek and when they consider being "done" with the acute illness and on track for the life they desire.	PCP/Clinic nurse	Prior to first multidisciplinary virtual visit.	If the family is struggling to determine goals, share explicit timelines of when the care team members would expect his care for this acute follow-up to be completed.

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