Pediatric Care Transitions: Improving Quality of Care

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Disclosures

- I have no relevant financial relationships with the manufacturer(s) of any commercial product(s) and/or providers of commercial service(s) discussed in this CME activity.

- I do not intend to discuss an unapproved/investigative use of a commercial product/device in our presentation.
Learning Objectives

- Examine the current state of pediatric care transitions
- Discuss potential quality metrics
- Describe the UCLA/RAND method to evaluate proposed quality metrics
- Identify one or more opportunities for improvement
- Join a QI collaborative to improve pediatric care transitions*

*actually an aspiration

Care Transitions

Diagram showing care transitions involving PCP, Home, ED, ICU, Inpt, Home Nursing, Home Equipment, Social Support, Specialty Clinic, Inpt, Long-Term Care Facility, Another Hospital, Patient And Family.
How do patients and families feel?

How do medical providers feel?
Current State

- Uncoordinated
- Unreliable
- Unsafe

Does the current state meet any of the IOM Aims for Improvement?

Institute of Medicine, Crossing the Quality Chasm, 2001
Not yet...

- "Deficits in communication and information transfer between hospital-based and primary care physicians: implications for patient safety and continuity of care"
- "Patient safety concerns arising from test results that return after hospital discharge"
- "Post-hospitalization transitions: Examining the effects of timing of primary care provider follow-up"
- "Tying up loose ends: discharging patients with unresolved medical issues"

Kripalani, JAMA 2007
Roy, Annals of Int Med 2005
Misky, Hosp Med 2010
Moore, Arch Int Med 2007

How do you view pediatric care transitions?

A series of tasks...
A series of handoffs...

...or could it become something special?

‘Seamless Transitions’
Care Transitions

Focus on Inpatient-to-Outpatient Care Transitions
Organizational Culture

- Fragmented hospital-primary care interface
- Undervaluing administrative tasks relative to clinical tasks in the discharge process
- Lack of reflection on the discharge process or process improvement

Model for Improvement

- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What changes can we make that will result in improvement?

AIM

Act
Plan
Study
Do

Associates for Process Improvement
How would you define a successful inpatient-outpatient transition?
What are we trying to accomplish?

How will we know that a change is an improvement?

What changes can we make that will result in improvement?

What measures define a successful transition?
Measures of Successful Transition

Outcome | Process | (Balancing)
--- | --- | ---

- Care Team
- Medication Reconciliation
- Test tracking
- Referral and follow-up appointments
- Admission/DC planning
- Information Transfer (timely, complete, accurate)
- Shared accountability of transition
- Patient Engagement/Education (self-management)

National Transitions of Care Coalition: Improving Transitions of Care
Outcomes: Beyond Readmissions

- “Limits of readmission rates in measuring hospital quality suggest the need for added metrics”\(^1\)
- “Pediatric readmissions are unlikely to serve as a highly productive focus for cost savings or quality measurement”\(^2\)

\(^1\) Scanlon, et al, Health Affairs 2013
\(^2\) Hain, et al, Pediatrics 2013

National Transitions of Care Coalition: Improving Transitions of Care

- Outcomes
  - Patient/family experience
  - Provider experience
  - Patient safety (med errors)
  - Healthcare utilization (ED, preventable readmissions)
  - Health outcomes

NTOCC Measures Workgroup, 2008,
http://www.ntocc.org/
Outcome Measures

- Hospital Utilization
- Continuity of Care
- Patient Status
- Handover Errors/Near-Miss/Adverse Events
- Primary Care Provider Use
- Medical Care Provider Status
- Caregiver Status

Hesselink G et al., Annals of Internal Medicine 2012

Handover Errors
Near-Misses & Adverse Events

- Med discrepancies in DC communication, pharmacy records Preventable adverse events

- Lack of literature on the impact of pre- and post-discharge interventions on post-hospital discharge adverse events

Renne, et al., Annals of Internal Medicine 2013
Developing Quality of Care Measures

- Center of Excellence on Quality of Care Measures for Children with Complex Needs (COE4CCN)
- Seattle Children’s Research Institute
- Sponsored by Agency for Healthcare Research and Quality (AHRQ) and Centers for Medicare and Medicaid Services (CMS)
- Develop quality of care measures
  - Transitions between sites of care
  - Care coordination for children with social risk factors

Delphi Panel

- Rated >30 proposed quality indicators based on systematic reviews of literature
- Attended a 2-day face-to-face Delphi Panel meeting in Seattle
- Re-rated the quality indicators after discussing them with other panelists
- Panel: 9 individuals representing various stakeholder organizations
UCLA/RAND Appropriateness Method

- Validity
- Feasibility

An Exercise:
Rate a Proposed Quality Indicator
Validity

1. Adequate scientific evidence or (if absent) expert consensus to support the relationship between:
   • Structure and Process
   • Structure and Outcome
   • Process and Outcome
2. Identifiable health benefits to patients who receive care specified by the indicator
3. Physicians with higher rates of adherence to measure would be considered higher quality providers
4. Majority of factors that determine adherence to an indicator are under the control of the physician and/or health care system


Take a Vote: Validity

Not Valid (1-3)  
Equivocal (4-6)  
Valid (7-9)
Feasibility

1. Information necessary to determine adherence is likely to be found in:
   - Medical record
   - Administrative billing database
   - Could be routinely collected during surveys without undue burden on medical provider, healthcare system, or State

2. Estimates of adherence to indicator based on data sources are likely to be reliable and unbiased
   - Reliability: degree to which assessment will be free of random error

Take a Vote: Feasibility

- Not Feasible (1-3)
- Equivocal (4-6)
- Feasible (7-9)
Reflection

- Limits:
  - Systematic review of relevant literature not provided
  - Were key stakeholders represented?

Stakeholders

**Inpatient**
- Hospitalist
- Nurse
- Pharmacy
- Social Work
- Case Manager
- Respiratory Therapy
- Care Coordinator
- Hospital Administrator
- Third-party payor

**Outpatient**
- Primary Care Provider
- Primary Care Office Nurse
- Pharmacy
- Care Coordinator
- Home Nursing
- Long-term Care Facility Personnel

**Patient**
- Family
- Caregivers
- Patient Advocate
Implications

- Designed to “Raise the floor”
- Our goal: “Raise the ceiling”

Next Steps

- Use QI Research Collaboratives and Learning Collaboratives to develop the evidence and accelerate improvement to raise the ceiling
Transitions of Care Consensus Policy Statement

Future Challenges
- Electronic Health Records
- Transitions Record
- Medical Home
- Pay For Performance
- Underserved/Disadvantaged Populations
- Need for Patient-Centered Approaches

Snow V et al, *Journal of Hospital Medicine* 2009

Model for Improvement

- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What changes can we make that will result in improvement?

Intervention

Act
Study
Plan
Do

Associates for Process Improvement
Patient-Centered Handoff

Deliver Patient-Centered Care

- On first meeting your patient: ask
  - “What do we need to know about you and your child to provide the best possible care?”

- Every patient encounter: ask
  - What other questions do you have?
  - What other concerns do you have?
  - Do you have other expectations that we have not addressed?

1 http://dignityincare.ca/en/toolkit.html
Patient and Family Needs Assessment

Barriers
- Adhering to/accessing discharge medications
- Cultural
- Social
- Financial
- Transportation

Patient and Family Engagement

- Build Transitions Record
  - Follow-up
  - Medications
  - Contingency Plan
  - Contact numbers
Patient-Centered Handoff

- Health-literate handouts
- Teach-back
- DC Transition Coach assist in Self-Management
  - Coordinate F/U appointments
  - Transportation
  - Prescriptions filled
- Post-DC phone call
- Repeat Teach-Back

Parent Perception

- I felt like my child was healthy enough to leave the hospital
- I felt comfortable calling my primary care provider if my child’s condition worsened after hospital discharge
- I understood how to manage my child’s health in the weeks after discharge

Berry, et al., International Journal for Quality in Healthcare 2013
Teach-back

Intervention
- Multimedia Diabetes Education Program
  - With teach-back v. without teach-back

Results
- Poor recall 2 weeks later in both groups

Combine Health-Literate Handouts with Teach-back

Intervention
- Physician use of teach-back techniques

Results:
- Knowledge
- Self-care
- Glycemic control

Schillinger D, et.al, *Archives of Internal Medicine 2003*

Medical Provider Handoff
A call to action to improve medical provider handoff

AAP SOHM Transitions of Care Collaborative

- Multi-site consortium of pediatric hospitalist members of AAP SOHM representing: (total 23 planning sites)
  - Community Hospitals
  - Children’s Hospitals within a Hospital
  - Free-standing Children’s Hospitals
Transitions in Care Collaborative Participating Sites

AAP SOHM Transitions of Care Collaborative

- Work to date includes:
  - Improved timeliness of hospitalist-PCP communication at discharge
    - Shen, et. al, Hospital Pediatrics 2013
  - Defined essential content for this communication
    - (Accepted for publication Hospital Pediatrics 2013)
**Essential DC Communication Bundle**

- Admission and DC dates
- DC diagnosis
- Medications
- Follow-up appointments
- Brief hospital course
- Pending lab tests
- Immunizations given during hospitalization

Coghlin, et al. [accepted for publication Hospital Peds]

**AAP SOHM Transitions of Care Collaborative**

- IRB approved
- ABP Maintenance of Certification, Part 4
  - AAP Portfolio
  - 1st MOC project to undergo evaluation and approval by the AAP Quality Council
Guiding Questions

Will a Pre-DC Care Transitions bundle improve caregiver ability to teach-back essential care components post DC?

How often will post-DC telephone conversation aid in correcting misinformation?

Will the combined pre and post discharge interventions impact hospital re-utilization?

Will reutilization measures be improved across various settings and patient populations?

Project Aims

Primary Aim
- Improve caregiver’s ability to teach-back essential self-management components of care post-discharge

Secondary Aims
- Reduce hospital re-utilization
- Improve PCP perception of medical provider handoff
Core Components

- Pre-DC PACT Bundle
- Post-DC Phone Interview
- Annual PCP Survey
- Hospital Utilization

PDSA Cycle Strategy

Cycle 1 (2-4 weeks):
Test on a Very Small Scale (single unit)

Cycle 2 (2-5 months):
Pilot on a Small Scale (subsequent units)

Cycle 3 (6-24 months):
Spread throughout hospital
Patient Populations

Technology-Dependent
- Ventriculo-peritoneal shunt
- Tracheostomy tube
- Central venous catheter
- Gastrostomy tube

Non-Technology Dependent
- Asthma (ages 2-17)
- Infants < 6 months of age
- Infants < 12 months of age
- Children < 2 years of age

Standardize the Process

- PACT Bundle
  (Patient-Centered Care Transitions Bundle)
<table>
<thead>
<tr>
<th>Date:</th>
<th>Admit Date:</th>
<th>Location:</th>
</tr>
</thead>
</table>

### Home Needs

1. medications filled/arranged
- n/a
- incomplete
- done

2. special nutritional needs
- n/a
- incomplete
- done

3. home nursing
- n/a
- incomplete
- done

4. DME (bed, walker, wheelchair)
- n/a
- incomplete
- done

5. home care supplies
- n/a
- incomplete
- done

6. prior auth forms/LOMN
- n/a
- incomplete
- done

7. PT/OT/Speech/EI
- n/a
- incomplete
- done

### Social Needs

1. transportation to home arranged
- n/a
- incomplete
- done

2. car seat obtained
- n/a
- incomplete
- done

3. home safety concerns addressed
- n/a
- incomplete
- done

4. custody/release consented
- n/a
- incomplete
- done

5. DHS cleared
- n/a
- incomplete
- done

6. insurance/self-pay addressed
- n/a
- incomplete
- done

7. other needs:
- n/a
- incomplete
- done

### Educational Needs

1. medication use taught back
- n/a
- incomplete
- done

2. home equipment use taught back
- n/a
- incomplete
- done

3. follow-up appointment(s) taught back
- n/a
- incomplete
- done

4. contingency plans taught back
- n/a
- incomplete
- done

### Follow-up

1. primary care physician identified
- n/a
- incomplete
- done

2. follow-up appointment(s) made
- n/a
- incomplete
- done

3. transportation to follow-up arranged
- n/a
- incomplete
- done

4. primary care physician contacted
- n/a
- incomplete
- done

5. discharge document communicated
- n/a
- incomplete
- done

6. pending labs follow-up arranged
- n/a
- incomplete
- done

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### Measures

- **Outcome**
  - Rate of Successful Post-DC Teach Back
  - PCP survey (timely communication includes essential information)
  - Hospital Re-utilization (return to ED with 3 days, readmissions)

- **Process**
  - PACT bundle completion
  - Pre-DC Teach Back completion
  - Hospitalist-PCP handoff (essential content on day of discharge)

- **Balancing**
  - PCP perception of omission of essential information
  - DRG-specific length of stay
Care Transitions

AAP SOHM Transitions of Care Collaborative Planning Team

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>David Cooperberg, MD (co-chair)</td>
<td>Vivian Lee, MD</td>
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<tr>
<td>Daniel Coghlin, MD (co-chair)</td>
<td>David Ming, MD</td>
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<td>Lora Bergert, MD</td>
<td>Leah Mallory, MD</td>
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<td>Sean Ervin, MD, PhD</td>
<td>Jordan Marmet, MD</td>
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<td>Sandy Gage, MD, PhD</td>
<td>Nena Osario, MD</td>
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<td>Cheryl Gebeline-Myers, MS</td>
<td>Beth Robbins, MD</td>
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<td>Monica Joseph, MD</td>
<td>Mark Shen, MD</td>
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<tr>
<td>Ann Kao, MD</td>
<td>Kristen Zanger, MD</td>
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</tbody>
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Thanks to

- St. Christopher’s Hospital for Children teams
  - Process Improvement Department and Lean Leaders
  - Christopher Russo (PL-3)
  - Cheryl Gebeline-Myers
- American Academy of Pediatrics
  - Section on Hospital Medicine Executive Committee
  - Niccole Alexander
  - Quality Council
  - Subcommittee on Quality and Safety

What questions do you have?
Thank you