Effectiveness of a Discharge Education Curriculum for Residents Rotating on an Inpatient Pediatric Ward

Julie Noffsinger, MD
Assistant Professor of Pediatrics
APPD Meeting March, 2012

Background

• Very little data on what information should be included in discharging a pediatric patient from hospital to home
• Most internal medicine residents/students undergo a formal curriculum in this area
• Pediatric residents get very little to no training in this area

Background

• Care Transitions Measure (CT-3)
  • Developed in adult population to measure the quality of care delivered across settings
  • The hospital staff took my preferences and those of my family or caregiver into account in deciding what my health care needs would be when I left the hospital
  • When I left the hospital, I had a good understanding of the things I was responsible for in managing my health
  • When I left the hospital, I clearly understood the purpose for taking each of my medications
  • Used to identify care deficiencies
  • To then devise and implement a quality improvement to remedy deficiency
  • Tool was found to predict post hospital return to ED within first 30 days after discharge

Background

• Continuity-structured Clinical Observations: Assessing the Multiple Observer Evaluation in a Pediatric Resident Continuity Clinic
  • Residents were evaluated by preceptor, parent and self in areas of patient care, interpersonal skills and communication & professionalism
  • Residents ranked lowest in ‘negotiations or management’
    • Questions such as the resident explained the diagnosis, avoided medical jargon, checked patient/parent understanding, explained management plan, asked about others involved in the care of the child, and assessed the family’s willingness to try an intervention
  • Study illustrated the need for additional teaching on discharge education to residents

Background

• Discharge Readiness: An integrative Review Focusing on Discharge Following Pediatric Hospitalization
  • Review study that identified support, identification of individual needs, education and communication/coordination are biggest factors influencing parents readiness to be discharged from hospital

Background

• Having nurses and mothers sign the d/c letter before d/c resulted in improved recall of d/c instructions and reported satisfaction with understanding of d/c instructions (82/88% compared to 58/73%)

• Discharge interventions that assess the need for social support and provide access and services have the potential to reduce chronic rehospitalization (seen to be even more important than lack of medical knowledge)
Background

• ACGME competency based education of residents necessitates that new ways be created to observe the residents obtaining competence in different areas (patient care, medical knowledge, practice based learning and improvement, communication skills, professionalism, and systems-based practice).
• Discharge teaching could be an area where all of the competencies could be observed.
• Checklist evaluation is one recommended tool from ACGME to assess resident skills.

Objectives

• To improve interns' comfort and ability in providing discharge education to patients and to increase the frequency they provide it.

Methods

• Physicians on the national pediatric hospital list serve and our 24 hospitalists were surveyed to reach expert consensus on the essential aspects of hospital discharge education.
• 12 topics identified as vital to hospital discharge were incorporated into a discharge education curriculum. The mnemonic DISCHARGE was used to help interns remember each topic.
• The curriculum was taught to interns mid-way through a 4 week inpatient rotation. The interns participated in a 20 minute interactive curriculum that included role play of a discharge education session done poorly and discussion of the components of discharge education.
• To assess comfort and behaviors regarding discharge education, interns completed pre and post curriculum surveys utilizing a 4 point Likert scale and free text comments.
• Discharge education skills were evaluated by hospitalist attendings using a 12 item yes/no observation checklist.
• Data was analyzed using the independent samples t-test along with the Cohen’s D effect size value where d>0.8= large effect and d>2= optimum effect.

DISCHARGE to Home Curriculum

• Diagnosis – Explain diagnosis, patient’s current status, and anticipated disease course.
• Instructions for home – Explain outpatient treatment plan (medications, therapies, etc.).
• Sit – Sit when talking with families.
• Communication – Use the native language of the family/primary care giver. Avoid medical jargon.
• How to take medications – Explain administration route, frequency, and duration of any new medications. Communicate any changes with the patient’s pre-hospital medications. Explain side effects. Are there any barriers to obtaining medications?
• Ability to follow-up – Do they have a PCP? When would you want them seen? Did you make them an appointment?
• Return precautions – When to call PCP and when to return to ED.
• Go over questions – Close by asking family if they have any questions.
• Ensure understanding – Have the family repeat back or summarize important parts of the discharge plan.

Results

• There were 21 interns enrolled in the study.
• The post-curriculum group showed increased comfort in providing discharge education (t-value 3.52, p<0.01, d=1.23) and interns reported they will provide more discharge education in the future (3.64/4, sd=0.50, where 1=mone of the time, 4=all of the time).
• Interns rated the curriculum favorably (3.5/4, sd= 0.53, where 1=strongly disagree, 4=strongly agree).
• Performance on the observation checklist improved after receiving the curriculum (t=4.97, p<0.01, d=2.11).
• Specifically, more interns asked families about barriers to filling scripts or ability to follow-up (t=4.87, p<0.01, d=2.04).
• Comments included, “it made me think of considerations I hadn’t previously thought of” and “this has made me make an effort to be present rather than just giving written instructions for the nurse to go over.”

Results

• Increased reports of observed patient encounters (t-value 3.49, p<.01)
### Discussion

- Discharge education is an important part of inpatient pediatrics yet there is no published curriculum in this area.
- Many pediatric hospitalists do not receive formal fellowship training therefore residency may be the only exposure to this topic prior to practicing.
- Although a small sample size, the results show significant improvement in intern discharge education comfort and skills.
- This curriculum demonstrates that a brief educational intervention can cover an important topic.
- Observing residents giving discharge education would be another tool to evaluate performance in the six core ACGME competencies.
- Future plans include creating a formal video of poorly and properly done discharges and to publish the curriculum.

### Discussion

- **Successes**
  - Curriculum rated favorably
  - Residents providing more discharge education
  - Getting observed more frequently (could help with ACGME competencies)
  - Self reports from patients/residents have identified some barriers prior to discharge (not in data form)

- **Limitations**
  - Proving improved patient care will be difficult
  - Patient care demands often limit number of observed clinical encounters
  - Did not train raters (to account for inter-rater reliability)

### Questions?

- http://youtu.be/n6gwNBsC61Q