Trainee Development- Are They Meeting Their Milestones?

Using Discharge Summaries to Evaluate Pediatric Sub-competencies

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Disclosure

- We have no relevant financial relationship in regard to this workshop

Objectives

- *By the end of the workshop, participants will be able to:*
  - *Identify key components of discharge summaries and patient risks associated with discharge summary deficits.*
  - *Utilize discharge summaries to evaluate pediatric residents and acting interns in Interpersonal and Communication Skills sub-competency 3 (Communicate effectively with physicians, other health professionals, and health-related agencies).*
  - *Utilize discharge summaries to evaluate pediatric residents and acting interns in Patient Care sub-competency 6 (Make informed diagnostic and therapeutic decisions that result in optimal clinical judgment).*

Introduction

How we feel about discharge summaries sometimes…

Activity: Brainstorming

- Purpose of discharge summaries
- Important components
- Areas for improvement

Evolution of a Curriculum

2009: Initial idea

2009-2010: Debate re: utility of acting interns doing discharge summaries

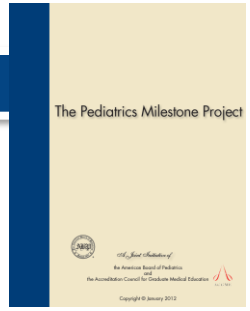
2011: Association with chart stimulated recall

2012-2013: Discharge summaries, CSR, and milestones

June 2009: First PGY-1 residents instructed

2010-2011: Structured feedback initiated

2012: Milestones



1- http://dontgetmestarted-lindasharp.typepad.com/dont_get_me_started_with_/2012/04/pulling-my-hair-out.html, Accessed 3/24/2013

2- http://theunderweardrawer.blogspot.com/2010/02/scut-i-have-done-medical-school-edition_02.html , Accessed 3/24/2013

3- https://www.abp.org/abpwebsite/publicat/milestones.pdf, Accessed 3/24/2013

Discharge Summaries: Purpose

- "A high quality discharge summary efficiently communicates information necessary for ongoing care by a patient's family (primary) physician."

Von Walraven C. & Rokosh, E. (1999). What is necessary for high-quality discharge summaries? *American Journal of Medical Quality*,*14*,160-169. doi: 10.1177/106286069901400403

Discharge Summaries: Purpose

- What it is *not*:
  - Recounting of entire history & physical
  - Day-by-day synopsis of progress notes
  - Stand-alone legal document
  - Form of resident/student mistreatment

Discharge Summaries: Importance

- Trend toward fewer re-admissions when primary care provider has discharge summary at follow up

- Increased risk of hospital re-admission when work-up error occurs between hospital discharge and primary care provider follow up

Van Walraven, C., Seth, R., Austin, P.C., & Laupacis, A. (2002). Effect of discharge summary availability during post-discharge visits on hospital readmission. *Journal of General Internal Medicine, 17,* 186-192.

Moore, C., Wisnivesky, J., Williams, S., & McGinn, T. (2003). Medical errors related to discontinuity of care from an inpatient to an outpatient setting. *Journal of General Internal Medicine, 18,* 646-651.

Discharge Summaries: Components

- Joint Commission Requirements
  - Reason for hospitalization
  - Significant findings
  - Procedures and treatment provided
  - Patient's discharge condition
  - Patient and family instructions
  - Attending physician's signature

Kind, A.J.H. & Smith, M.A. (2008). Documentation of mandated discharge summary components in transitions from acute to subacute care. In K. Henriksen, J.B. Battles, M.A. Keyes, M.L. Grady, (Eds.), *Advances in Patient Safety: New Directions and Alternative Approaches (Vol. 2: Culture and Redesign)*. Rockville (MD): Agency for Healthcare Research and Quality (US). Retrieved from http://www.ncbi.nlm.nih.gov/books/NBK43715/pdf/advances-kind_31.pdf

Discharge Summaries: Components

- Survey of 100 physicians
- 56 items: content and process
- Ordinal scale: -4 → +10
- Categories:
  - Process
  - Pre-admission
  - Hospital
  - Discharge

Von Walraven C. & Rokosh, E. (1999). What is necessary for high-quality discharge summaries? *American Journal of Medical Quality*,14,160-169. doi: 10.1177/106286069901400403

Discharge Summaries: Components

- Important components
  - Admission diagnosis
  - HPI
  - Therapeutic procedures
  - Complications
  - Consultations
  - Discharge diagnosis
  - All discharge medications
  - Medical/social issues outstanding at discharge
  - Structured format

Von Walraven C. & Rokosh, E. (1999). What is necessary for high-quality discharge summaries? *American Journal of Medical Quality*,14,160-169. doi: 10.1177/106286069901400403

Discharge Summaries: Components

- Detracting features
  - Over-inclusiveness
    - *Entire* exam, *all* labs, *all* treatments
    - *Entire* past medical history
    - Social history (non-relevant)
    - Family history (non-relevant)
  - Over 4 weeks until receipt
  - Over 2 pages

Von Walraven C. & Rokosh, E. (1999). What is necessary for high-quality discharge summaries? *American Journal of Medical Quality*,14,160-169. doi: 10.1177/106286069901400403

Discharge Summaries: Components

- Inpatient vs. outpatient physicians
  - 400 general practitioners, 400 hospital physicians, 400 junior hospital physicians
  - 20 items, pick top 12
  - Can add “write-in” items
  - 53% response rate

Solomon, J.K., Maxwell, R.B.H., & Hopkins, A.P. (1995). Content of a discharge summary from a medical ward: Views of general practitioners and hospital doctors. *Journal of the Royal College of Physicians of London, 24*, 307-310.

Discharge Summaries: Components

- Agreement
  - Discharge medications
  - Significant results
  - Follow-up
  - Information given to patients about diagnosis

Solomon, J.K., Maxwell, R.B.H., & Hopkins, A.P. (1995). Content of a discharge summary from a medical ward: Views of general practitioners and hospital doctors. *Journal of the Royal College of Physicians of London, 24*, 307-310.

Discharge Summaries: Components

- "Top Ten" Components
  - Medications at discharge
  - Follow up issues
  - Discharge diagnosis
  - List of procedures
  - Pathology results
  - Pending test results
  - Procedure reports
  - Stress test reports
  - Date of admission/discharge
  - Problem list

O'Leary, K.J., Liebovitz, D.M., Feinglass, J., Liss, D.T., & Baker, D.W. (2006). Outpatient physicians' satisfaction with discharge summaries and perceived need for an electronic discharge summary. *Journal of Hospital Medicine, 1*, 317-321. doi 10.1002/jhm.118

Discharge Summaries: Format

- Database-generated preferred over dictated discharge summaries
- Use of template increases quality and decreases length
- Electronic medical record increases completeness and timeliness

Van Walraven, C., Duke, S.M., Weinberg, A.L., & Wells, P.S. (1998). Standardized or narrative discharge summaries: Which do family physicians prefer? *Canadian Family Physician, 44,* 62-69.

Van Walraven, C., Laupacis, A., Seth, R., Wells, G. (1999). Dictated versus database-generated discharge summaries: A randomized clinical trial. *Canadian Medical Association Journal, 160,* 319-326.

Rao, P., Andrei, A., Fried, A., Gonzalez, D., & Shine, D. (2005). Assessing quality and efficiency of discharge summaries. *American Journal of Medical Quality, 20,* 337-343. doi: 10.1177/1062860605281078

O'Leary, K.J., Liebovitz, D.M., Feinglass, J., Liss, D.T., Evans, D.B., Kulkarni, N., … & Baker, D.W. (2009). Creating a better discharge summary: Improvement in quality and timeliness using an electronic discharge summary. *Journal of Hospital Medicine, 4,* 219-225. doi 10.1002/jhm.425

Discharge Summaries: Opportunities for Improvement

- Deficits in discharge summaries
  - Main diagnosis (17.5%)
  - Physical exam findings (10.5%)
  - Treatment/ hospital course (14.5%)
  - Discharge medications (21%)
  - Follow up (14%)

Kripalani, S., LeFevre, F., Phillips, C.O., Williams, M.V., Basaviah, P., & Baker, D.W. (2007). Deficits in communication and information transfer between hospital-based and primary care physicians: Implications for patient safety and continuity of care. *JAMA, 297*, 831-841. doi:10.1001/jama.297.8.831

Discharge Summaries: Timeliness Matters

"Old Stoney was in the Fax Department,
until we decided even that was too fast for him."

http://www.iclipart.com/dodl.php?linklokauth=LzA5Mi9iYXRjaF8wMS9jZngxMDVocy5qcGcsMTM2NDE0Mzg2NSw5OC4xNjkuMTQ5LjE4NiwwLDAsTExfMCwsMTVmZDI3ZTg1OGI5ZTY0MjcoOTNiNDRiNDAyYjZmOTk%3D/cfx105ts.jpg, Accessed 3/24/2013

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Chart – Stimulated Recall: Background

- What is it?
  - Developed as clinical assessment tool for Emergency Medicine
  - Case-based interviewing technique
    - Clinical decision-making
    - Application of medical knowledge
  - Probing questions stimulate the examinee's recall of the case
    - Rationale for diagnostic, investigative, and treatment decisions

Maatsch, J.L., Huang R., Downing, S.M., & Barker, D. (1983) *Predictive validity of medical specialty examinations: Executive summary for National Center of Health Services Research.* Grant No. HS01038-04. Office of Medical Education, Research and Design, College of Human Medicine, University of Michigan.

Jennett P. & Affleck L. (1998). Chart audit and chart stimulated recall as methods of needs assessment in continuing professional health education. *The Journal of Continuing Medical Education, 18*, 163-171.

Accreditation Council for Graduate Medical Education, ACGME Outcomes Project. (2000). *Toolbox of assessment methods, version 1.1.* Retrieved from http://www.chd.ubc.ca/files/file/instructor-resources/Evaluationtoolbox.pdf.

Chart – Stimulated Recall: Background

- How is it conducted?
  - Standardized oral examination format
  - Open-ended/semi-structured questions
  - Ranges from 5-10 or 15-20 minutes
  - Need 3-6 cases to accurately assess competence
  - Audio-taping or video-taping often used

Accreditation Council for Graduate Medical Education, ACGME Outcomes Project. (2000). *Toolbox of assessment methods, version 1.1.* Retrieved from http://www.chd.ubc.ca/files/file/instructor-resources/Evaluationtoolbox.pdf.

Jennett P. & Affleck L. (1998). Chart audit and chart stimulated recall as methods of needs assessment in continuing professional health education. *The Journal of Continuing Medical Education, 18*, 163-171.

Munger, B.S., Maatsch, J.L., Huang, R., & Downing, S.M. (1984). The predictive validity of a criterion-referenced specialty certification examination in emergency medicine. In Newer Developments in Assessing Clinical Competence. *International Conference Proceedings, Ottawa Conference on Medical Education* (pp 481-487).

Chart – Stimulated Recall: Background

- How is it used?
  - Five of 24 ABMS member boards use as part of their oral exams for initial certification
  - "Mock orals" used by residency programs to prepare trainees for board certification exams
  - Canadian physician assessment review
  - Needs assessment for continuing education learning objectives

Accreditation Council for Graduate Medical Education, ACGME Outcomes Project. (2000). *Toolbox of assessment methods, version 1.1.* Retrieved from http://www.chd.ubc.ca/files/file/instructor-resources/Evaluationtoolbox.pdf

Jennett P. & Affleck L. (1998). Chart audit and chart stimulated recall as methods of needs assessment in continuing professional health education. *The Journal of Continuing Medical Education, 18*, 163-171.

Chart – Stimulated Recall: Background

- Strengths
  - Reliable and valid
  - Immediate and specific feedback
- Weaknesses
  - Expensive and time-consuming
  - Dependent on self-report and recall of interviewees
  - Element of subjectivity
  - Potential to become judgmental

Norman, G.R., David D.A., & Painvin, A. (1989). Comprehensive assessment of clinical competence of family/general physicians using multiple measures. In *Proceedings of the Association of American Medical Colleges' Research in Medical Education Conference Proceedings (pp.* 75-80).

Solomon, D.J., Reinhart, M.A., Bridgham, R.G., Munger G.S., & Starnaman S. (1990). An assessment of an oral examination format for evaluating clinical competence in emergency medicine. *Academic Medicine, 65,* s43-S44.

Schipper, S. & Ross, S. (2010). Structured teaching and assessment: A new chart-stimulated recall worksheet for family medicine residents. *Canadian Family Physician, 56,* 958-959. Retrieved from http://www.cfp.ca/content/56/9/958.full.pdf+html

Bashook, P.G. & Parboosingh, (1998) J. Recertification and the maintenance of competence. *BMJ, 316,* 545-548. doi: http://dx.doi.org/10.1136/bmj.316.7130.545

Jennett P. & Affleck L. (1998). Chart audit and chart stimulated recall as methods of needs assessment in continuing professional health education. *The Journal of Continuing Medical Education, 18,* 163-171.

Chart – Stimulated Recall: Background

- Toolbox of Assessment Methods (September 2000)
  - ACGME Outcomes Project
  - American Board of Medical Specialties (ABMS)

Chart-Stimulated Recall: Tool

- 1. Can you give me an overview of the case?
- 2. What features of the patient's presentation led you to your top two or three diagnoses?
- 3. Why did you choose the investigations that you did?
- 4. Were there other tests that you considered but decided against? Why?
- 5. What features led you to choose the treatment that you did?
- 6. Were there other treatments that you considered but did not pursue? If so, why did you decide against them?

Adapted from The Alberta Rural Physician Action Plan Practical Prof: http://www.rpap.ab.ca/images/upload/Chart%20Stimulated%20Recall%20Wksht%20July-09.doc, Accessed 4/30/2012

Patient Care: Sub-competency 6

- Make informed diagnostic and therapeutic decisions that result in optimal clinical judgment

Accreditation Council for Graduate Medical Education and American Board of Pediatrics, Pediatrics Milestone Working Group. (2012). *The Pediatrics Milestone Project.* Retrieved from *http://www.acgme.org/acgmeweb/Portals/0/PFAssets/ProgramResources/320_PedsMilestonesProject.pdf*

PC 6: Milestone 1

- Recalls and presents clinical facts in the history and physical in the order they were elicited without filtering, reorganization, or synthesis. Analytic reasoning through basic pathophysiology results in a list of all diagnoses considered rather than the development of working diagnostic considerations, making it difficult to develop a therapeutic plan.

PC 6: Milestone 2

- Focuses on features of the clinical presentation, making a unifying diagnosis elusive and leading to a continual search for new diagnostic possibilities. Largely using analytic reasoning through basic pathophysiology in diagnostic and therapeutic reasoning; often reorganizes clinical facts in the history and physical examination to help decide on clarifying tests to order rather than to develop and prioritize a differential diagnosis. This often results in a myriad of tests and therapies and unclear management plans, since there is no unifying diagnosis.

PC 6: Milestone 3

- Abstracts and reorganizes elicited clinical findings in memory, using semantic qualifiers (such as paired opposites that are used to describe clinical information [e.g. acute and chronic]) to compare and contrast the diagnoses being considered when presenting or discussing a case. The emergence of pattern recognition in diagnostic and therapeutic reasoning often results in a well-synthesized and organized assessment of the focused differential diagnosis and management plan.

PC 6: Milestone 4

- Reorganized and stored clinical information (illness and instance scripts) leads to early directed diagnostic hypothesis testing with subsequent history, physical examination, and tests used to confirm this initial schema. Well-established pattern recognition leads to the ability to identify discriminating features between similar patients and to avoid premature closure. Therapies are focused and based on a unifying diagnosis, resulting in an effective and efficient diagnostic work-up and management plan tailored to address the individual patient.

Interpersonal and Communication Skills: Sub-competency 3

- Communicate effectively with physicians, other health professionals, and health-related agencies

Accreditation Council for Graduate Medical Education and American Board of Pediatrics, Pediatrics Milestone Working Group. (2012). *The Pediatrics Milestone Project. Retrieved from http://www.acgme.org/acgmeweb/Portals/0/PFAssets/ProgramResources/320_PedsMilestonesProject.pdf*

ICS 3: Milestone 1

- Rigid rules-based recitation of facts. Often communicates from a template or prompt. Communication does not change based on context, audience, or situation. Not aware of the social purpose of the communication.

ICS 3: Milestone 2

- Begins to understand the purpose of the communication and at times adjusts length to context as appropriate. However, will often still err on the side of inclusion of excess details.

ICS 3: Milestone 3

- Successfully tailors communication strategy and message to the audience, purpose, and context in most situations. Fully aware of the purpose of the communication; can efficiently tell a story and effectively make an argument. Beginning to improvise in unfamiliar situations.

ICS 3: Milestone 4

- Uses the appropriate strategy for communication. Distills complex cases into succinct summaries tailored to audience, purpose, and context. Can improvise and has expanded strategies for dealing with difficult communication scenarios (e.g. an interprofessional conflict).

ICS 3: Milestone 5

- Master of improvisation in any new or difficult communication scenario. Recognized as a highly effective public speaker. Intuitively develops strategies for tailoring message to context to gain maximum effect. Is sought out as a role model for difficult conversations and mediator of disagreement.

Activity:
Applying the Milestones

- For each of the sub-competencies (PC 6 and ICS 3), discuss concrete examples of each milestone level
- For each milestone, pick the five key words

Illness Scripts, Instance Scripts

- Illness Scripts
  - Knowledge structures developed from experience
  - Structures different from novice physicians
- Instance Scripts
  - Based on memories of specific patients

Schmidt, H.G. & Boshuizen, H.P.A. (1993). On acquiring expertise in medicine. *Educational Psychology Review*, 5, 205-221. Retrieved from http://journals.ohiolink.edu.proxy.libraries.uc.edu/ejc/pdf.cgi/Schmidt_Henk_G.pdf?issn=1040726x&issue=v05i0003&article=205_oaeim

Evaluation Tools

- Milestones modified
  - Applicable to discharge summaries (retrospect)
  - More succinct
  - More user-friendly (hopefully)

PC 6: Evaluation tool

- Milestone 1: Recalls and presents clinical facts in the hospital course in the order they were elicited without filtering, reorganization, or synthesis. Analytic reasoning through basic pathophysiology results in a list of all diagnoses considered rather than a clear, linear description of how the diagnosis and therapeutic plan were achieved.

Adapted from: Accreditation Council for Graduate Medical Education and American Board of Pediatrics, Pediatrics Milestone Working Group. (2012). *The Pediatrics Milestone Project. Retrieved from http://www.acgme.org/acgmeweb/Portals/0/PFAssets/ProgramResources/320_PedsMilestonesProject.pdf*

- Milestone 2: Focuses on non-relevant features of the clinical presentation, making the primary diagnoses unclear. Often reorganizes clinical facts in the history and physical examination to help explain tests ordered rather than to elucidate the primary diagnoses. This often results in a recounting of all tests and therapies performed and unclear management plans, since there is no focus on the primary diagnoses.

- Milestone 3: Abstracts and reorganizes elicited clinical findings in memory, using semantic qualifiers (such as paired opposites [e.g. acute and chronic]) to support the primary diagnoses when summarizing a case. The emergence of pattern recognition in diagnostic and therapeutic reasoning often results in a well-synthesized and organized summary of the primary diagnoses and management plan.

- Milestone 4: Reorganized and stored clinical information (clinical experience) lead to a directed summary of history, physical examination, and diagnostic tests. Well-established pattern recognition enables identification of discriminating features between similar patients. Therapies recounted are focused and based on a unifying diagnosis, resulting in an effective and efficient summary of the diagnostic work-up and management plan.

ICS 3: Evaluation Tool

- Milestone 1: Rigid rules-based recitation of facts. Often communicates from a template or prompt. Not aware of the purpose of the discharge summary. *(For example, hospital course is a restatement of daily progress notes).*

- Milestone 2: Begins to understand the purpose of the communication and at times adjusts length to context, as appropriate. However, will often still err on the side of inclusion of excess details.

- Milestone 3: Fully aware of the purpose of the discharge summary; can efficiently summarize the hospital course in straightforward cases.

- Milestone 4: Distills complex cases into succinct summaries tailored to audience and purpose of discharge summary. Hospital course and management decisions are clear without including excessive detail.

- Milestone 5: Intuitively develops strategies for tailoring message to context to gain maximum effect. Discharge summaries are used as a model for teaching.

Activity:
Evaluating Discharge Summaries

- Review discharge summaries
- Using evaluation tool for ICS sub-competency 3, individually assign a milestone for each summary
- Group consensus

Current Curriculum

- Instruction at orientation
- First inpatient block
  - Review of three discharge summaries with feedback
- Feedback PRN
- Last inpatient block
  - Review of three discharge summaries
  - Chart-stimulated recall interview based on discharge summaries
- Evaluation
  - Discharge summary only → ICS 3
  - Discharge summary + CSR → PC 6

Moving Forward

- Discharge Summaries and Milestones Study:

  Validity of a tool to assess two pediatric sub-competencies using resident discharge summaries

  - Audio recording of CSR interviews
  - Discharge summaries and interviews reviewed by five attending physicians
  - Inter-rater reliability

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