

## MS3/4 Virtual Clinical Support Internal Medicine Elective Preparation

Adapted from Czapka M, Raff A, Risley M. Safe Transitions: An active learning module for discharge summaries and interprofessional care. MedEdPORTAL iCollaborative. 2017

Adapted for Perelman School of Medicine at the University of Pennsylvania by Margot Cohen MD, MEd and Andrew Orr MD

Included:

- 1) Student Skills Session Overview/materials

### **Virtual Clinical Support Internal Medicine Elective Preparation – Student Overview**

#### ***LEARNING OBJECTIVES***

By the end of the learning module, students should be able to:

1. Summarize the purpose and audience of a discharge summary.
2. Choose which items from a patient's hospital stay are appropriate to include in a discharge summary HPI and Hospital Course.
3. (Optional) Effectively communicate a patient's follow up needs to the patient's outpatient care team including primary care provider or specialist providers

#### ***LEARNING ACTIVITIES***

1. Utilizing the knowledge gained from the pre-readings, create an appropriate discharge summary from the case provided.
2. Using a scoring rubric, discuss the similarities and differences between the discharge summary created by the student, and an example "expert" discharge summary which will be revealed at the end of the session.

#### ***INSTRUCTIONS***

Preparation for session:

Required:

- 1) Read the information provided in this document to prepare for the session. You should be adequately prepared to craft a discharge summary.

Optional:

- 2) You may choose to look at real discharge summaries or hospital courses from patients currently assigned to (or recently discharged from) your team to further prepare you for the format.

## Context

As early as M3, students may be expected to write hospital summaries for their own/their resident's patients – often to aid in completion of transfer notes/discharge summaries. During the Sub-Internship, students have the increased responsibility of completing their own transfer notes and discharges. Unfortunately, these tasks have proven difficult or confusing for students as there was not a formal introduction to these types of clinical communication, and suggestions on accomplishing these tasks on the floors are often rushed or non-specific given the busy clinical services. Every type of physician will need to understand how to appropriately communicate transitions of care – whether that be from inpatient to outpatient, from one team to another, or from day to night shift. Being able to effectively communicate in these formats facilitates transitions of care. Clarity in this arena may aid in avoidance of unnecessary repetition of diagnostic tests, and may be beneficial to patient safety.

## Purpose and Application of the Discharge Summary:

The discharge summary is a document to be created for every patient leaving the hospital. A nurse, physician or advanced practice provider should go over the contents of the completed discharge summary with the patient prior to discharge (*especially any changes in their home medications*), and patients are provided with a copy upon leaving the unit. Patients should be advised to bring the discharge summary to their outpatient follow up appointments – the importance of this is magnified if the EMR is not shared between outpatient and inpatient physicians.

While the patient is given a copy of the summary and is part of the intended audience, most of the information is geared to other healthcare professionals – such as their PCP or an ED physician at an outside hospital. The language and vocabulary used in the discharge summary should thus be geared towards a medical audience. Commonly utilized abbreviations (e.g. HR, BP) may be used, but less common or easily confused abbreviations (e.g. DITMA for drug-induced thrombotic microangiopathy) should be avoided. The information should also include all relevant facts **while being succinct enough to be quickly read during an outpatient follow up appointment** – this is probably the most difficult part of crafting an effective discharge summary. However, with experience, finding the pertinent information to include will become easier.

## **Formatting of Discharge Summary:**

Every hospital you work at will have different EMRs with slightly different formatting. This is a general discharge summary format for you to gain experience with the items usually required and advice on how to excel in performing each piece.

Date of Admission/Transfer:

Date of Discharge/Transfer:

Discharge Diagnosis: At the time of discharge, what was shown/thought to be final diagnosis. It may be different from the admitting diagnosis. You may initially think someone has a pneumonia on admission. By the time they are discharged, it may turn out that the SIRS, pulmonary effusion, and pleuritic chest pain were from a pulmonary embolus, and so this should be listed as discharge diagnosis.

Secondary Diagnoses: Other active medical problems that are being treated, even if they were not the primary reason for admission. This can include the comorbidities that the patient has had for years, such as DM, HTN, etc.

*Note: In EPIC, the hospital problem list should auto-update if you click Refresh. This should include the principal (primary) problem as well as secondary problems and resolved problems. You do not need to re-write this list if it is auto-populated correctly.*

Procedures: What happened, when did it happen, what are the results/complications? If a procedure was later reversed, this should be included as well. Ex: Patient intubated 11/15 without complication. Extubated 11/21 without incident.

Summary Statement: A concise, up-to-date summary statement should be provided as an introduction prior to the problem-based hospital course (see below). This should summarize the initial presentation, notable secondary issues and final diagnosis. This may be adapted from the Progress Note summary statement nearing the day of discharge (if it has been appropriately updated!)

Hospital Course: Probably the most challenging piece of the discharge summary to write as you need to make it as brief as possible, while including all the important facts and transforming language into summary statements. You want to tell the main story of the hospitalization in as few words as possible. This is a skill which will come with time. *We strongly recommend organizing your hospital course by prioritized hospital problems (similar to a progress note or HPI problem list) to aid in organization rather than writing a longer narrative accounting of events. Organizing by problem list will help both you (the discharge summary writer) and the discharge summary's intended audience to easily find important information in the future.*

What to include: test results essential to diagnosis, therapeutic interventions essential to treatment of main hospital problems, procedures (with dates), antibiotic courses with dates.

What to exclude: typical prophylaxis (heparin, SCDs), detailed accounts of fluid administration, or minor electrolyte disturbances, theories on what went wrong during a hospital course (this is a legal document).

Consider two examples:

**Bad:** Vancomycin and cefazolin were initiated for treatment of presumed RLE cellulitis. On 11/21 BUN and Creatinine had crept up to 40 and 1.5 respectively. We didn't know if it was related to the vancomycin or to possibly dehydration, so we decided to bolus 2L of Normal Saline. As it turns out, the creatinine came down to 1.3 the next day, so we decided to continue fluids, and then over the next two days it went to 1.1 and .9, which is her baseline. Dermatology confirmed that this was cellulitis. During the time of the AKI the patient's K was noted to be 5.6, but we decided to check a follow up BMP 6 hours later which was within normal limits. The area of erythema gradually receded over days, while initially febrile to 101.1F, her fevers resolved by day 2, and her white count, initially 13.1, came down to 10.3. We converted to oral medicines so she can continue these as outpatient.

**Better:**

# Right lower extremity cellulitis: Vancomycin and cefazolin were initiated for treatment of presumed RLE cellulitis. On hospital day three, dermatology biopsied the lesion, with tissue culture positive for MRSA. Given resolution of fevers, leukocytosis, and clinical improvement of lesion appearance, patient was deemed stable for discharge. IV vancomycin was converted to PO doxycycline on hospital day four, and patient is to continue treatment for MRSA cellulitis for another three days, completing seven-day course.

# Pre-renal acute kidney injury: On day two of hospitalization, a likely pre-renal AKI was noted (Cr peak 1.5) which responded to fluid resuscitation. The patient's creatinine returned to baseline (Cr 0.8) by the day of discharge.

Relevant Labs/Imaging: Any results that were essential for diagnosis, or will be essential for the outpatient provider to know. Copy and pasting every result from the stay without thought is inappropriate – your reader will probably just skip this section if you do this.

Condition: What is their physical and cognitive functional status? Emphasize whether there has been a major change during their hospital course. “Patient now ambulating with walker following L MCA ischemic stroke, cognitively intact.”

Disposition: Where is the patient going following hospitalization? Home? Home with services? Acute v subacute rehab? LTACH? Physical therapy, Social Work and Clinical Resource Coordinators should help with establishing disposition specifics prior to discharge.

*Note: In EPIC, patient condition and disposition are smartphrases that must be completed in order to finalize the discharge summary document. You do not need to re-write this list if it is auto-populated correctly.*

Discharge Medications/Medication Reconciliation: Specific attention should be given to any home medications which were stopped during hospitalization, and whether the patient can resume taking these. In EPIC, this will auto-populate based upon the resident's completed medication reconciliation, so rationale for your decisions will likely need to be communicated in the hospital course.

*Note: Medical students are not responsible for completing the medical reconciliation as part of this elective. Please communicate with your primary resident team if there are questions or concerns about discharge medication reconciliation.*

Pending Studies: List any tests (labs, imaging) completed, but unreported, that require follow up.

*Note: In EPIC, this will auto-populate and does not need to be separately documented.*

Follow-up: Follow up appointments can be scheduled by the patient or the provider, and once that information is confirmed, it should be listed here. The following details should be included: name of provider, provider specialty, name of practice, location (address and room in building), time of appointment, and a phone number for practice. Patients should be instructed to call and cancel/change appointment if they cannot make it for any reason. Equally important is that the *phone number of the patient*, which you will often provide to outpatient provider, is 1) actually working, and 2) can receive calls.

*Note: In EPIC, this will auto-populate and does not need to be separately documented. However, it can be extremely useful (particularly during COVID-19) for a team member to confirm whether or not existing outpatient providers have in-person v tele-medicine follow-up options and what the logistical details of this may be for the patient. Please communicate with your primary resident team if there are questions or concerns about patient follow-up.*

Discharge Instructions: This section should be written for the audience of both the patient and PCP. Anything that the patient will need to do for themselves can be included here, such as wound care instructions, dietary limitations (including input from speech and swallow), or notable medical discontinuations, changes or additions. Return precautions may also be reviewed here to help guide the patient and family upon arriving home. It is important to ensure that the patient and/or family can both read and understand the information in this section (e.g. language and/or literacy barriers should be addressed here whenever possible).