StatMacros

AN INTRODUCTION TO EFFICIENT AND EFFECTIVE CHARTING IN THE EMERGENCY DEPARTMENT

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Acknowledgements

This text would not have been possible without the support of my faculty and mentors at the George Washington University Department of Emergency Medicine, who supported my odd interest in documentation and provided dedicated time during my residency to complete it. I would also like to thank my wife, Elsa, who has been my unofficial editor in spite of her protestation.

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INTRODUCTION

For residents and providers just starting their careers, the medical record can seem like an onerous task with little importance in relationship to the clinical aspects of the job. This text will provide background on the importance of the medical chart and identify some of the key components every provider should include in their charting. In writing this, my goal is to improve patient safety, your medicolegal knowledge, and the quality of your charts, without impacting your efficiency. Improving charting can improve the care of our patients and provide better context for the decisions we make every day. This text is available at limited to no cost for all emergency medicine residents, medical students, and advanced practice providers. If you have any feedback on the content, suggestions, or questions please feel free to contact me directly.

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A BRIEF HISTORY OF MEDICAL RECORDS

Although it can be difficult to imagine, there was a time when medical providers did not document the work they performed or recorded histories of their patient’s illness. Hippocrates and his pupils were known for documenting a written record of patients, typically done in stone tablet form, however this mostly fell out of fashion after his death. Razi, an Islamic physician, was one of the few who continued the development of case histories into the 900s. Until the 17th century there appears to be little written documentation of patient-provider contact. Early records from astrologers consisted of diaries or registers of patients often recording the patient’s name, age,
complaint, and payment. Detailed records became known as casebooks which were used for memorizing potential treatments and attesting to the provider’s proficiency¹. A typical case would include a mapping of the position of the stars, the practitioner’s judgement on the cause of illness, and a short amount of evidence from the patient’s own account (although this seems to be more of an afterthought). Early casebooks appeared more interested in successful outcomes while later works began to highlight the patient’s presentation and disease process.

In the 18th and 19th centuries most medical records consisted of registries such as admission and discharge records. By 1880, medical and surgical records were identified as important legal documentation for insurance and malpractice leading to the modern medical chart, and many hospitals including Massachusetts General, began to keep the records of physicians². In the 1920’s, the American Association of Record Librarians (now the American Health Information Management Association) created standardized paper medical records, variations which were used up until the development of computer-based systems.

The Health Evaluation through Logical Programming (HELP) software was the first electronic medical record, started by the Latter-Day Saints Hospital, Utah in 1967. Early on, software developers focused on individual departments such as Radiology where software solutions easily replaced older analog techniques. As separate departments utilized different software there became siloes of information and complete lack of communication between departments of the same hospital. One of the first system-wide EHRs was the Department of Veterans Affairs’ Decentralized Hospital Computer Program (DHCP), leading to the Computerized Patient Record System (CPRS) which is still used today. The 2009 American Recovery and Reinvestment Act signed by President Barrack Obama required the adoption of EHRs by primary care providers and led to a revolution from paper to electronic charting across the US with the hope to decrease medical errors and patient deaths³.

As medical records transitioned from standardized paper forms to electronic medical records concerns were growing regarding the patient experience and patients’ rights. This led to a shift in how the medical documentation was perceived. The medical record became
a documentation of the patient as a medical construct, including not only the provider’s medical opinion but also the patient’s own experience and perspective of what they were suffering from. Enter the modern-day medical record which typically includes a subjective history as well as space for objective documentation and medical decision making. The medical record has moved from documenting successful cases, to becoming the hub for billing, patient tracking, and medicolegal defense.

An example of the original T sheets medical record.
Reproduced with permission, property of T system, www.Tsystem.com

When emergency medicine was born in the 1960’s and 1970’s, traditional charting was carried over from the medical and surgical units. These charts typically relied on lengthy hand-written notes or dictations. With increasing patient loads and time constraints a new templated charting method was created by two ER physicians, Drs. Woodrow Gandy and Rob Langdon, called “T sheets”. The T sheet was a template-based documentation system which could easily document the most common complaints by simply circling or crossing-out information on the chart, while adding only short amounts of handwritten text. Paper T sheets resided in a shelving unit with a printed homunculus to identify which sheet to use for what patient. The T sheet system was used throughout the United States and was even featured on the popular TV show “ER”. Today, T sheets has moved into the EMR age as T system’s “EV” EHR, and
almost all ER charts are arranged in a similar manner or echo the classic T sheets.

An example of the Homunculus storage system for the original T sheets medical record. Reproduced with permission, property of T system, www.Tsystem.com
CHAPTER 1

Building a Defensible Chart

The emergency department's unique environment leads to problematic issues with charting. The time constraints and unpredictable nature of patient care in the ED prioritizes immediate patient care needs while documentation is frequently done hours later and may be incomplete. With a rapidly filling waiting room and constant interruptions, it can be easy to skimp on documentation or forget to address an abnormal lab value in the chart. Additionally, ED providers are typically unfamiliar with the patients they are evaluating and may have minimal information on which to make decisions. With limited information, a broad spectrum of pathology, and increased patient volumes, ED providers are at increased risk for adverse outcomes and litigation. When litigation does occur the provider's chart may be lacking important clinical decision making such as the rational for prescribing a certain medication or the reason a diagnosis was excluded. ED providers may feel they do not have the luxury of time to discuss their complete medical decision making, yet providers must balance time constraints with in-depth documentation that is useful for more than just billing.

IS THERE A CASE?

When a case is being considered for legal action, the most important question is if the provider was negligent in the care they provided, or if they failed to provide the standard of care that a reasonably competent healthcare professional with similar background would
provide. While investigating a potential case, the plaintiff's team will review all the medical records to evaluate the care provided. All documentation, including the entire medical record and internal notes or memos may be used to show the standard of care was or was not met. Specifically, poor documentation can be used to show there were lapses in care or judgement, draw inferences of substandard care, and be used for expert witnesses to provide critical opinions on the case. Inaccuracies can be used to discredit the entire note, as well as your clinical decision making. Good documentation can show there were no lapses or inconsistencies, and that the standard of care was met. Anecdotally, many cases have not progressed past an initial investigation because the documentation is well written and provides clear evidence in defense of the provider\(^5\).

### THE ED CHART

The typical emergency department chart is a blend between the traditional History & Physical note and the focused SOAP note. This generalized format is customized to fit a specific complaint, such as abdominal pain, headache, or musculoskeletal pain. These charts typically have History of Present Illness (HPI), Review of Systems (ROS), Physical Exam, Medical Decision-making (MDM), Reevaluation, and Disposition sections. Each section may have selection boxes for specifics, depending on the complaint, as well as areas for free text, depending on the EMR or specific template. The selectable/clickable text typically aids in rapidly coding and billing for a visit, however the free text is better able to provide a realistic and legible record of the visit and clinical decision making. When possible, it is always better to provide free text notes than simply clicking check marks.
Within the first half of the chart; the HPI, ROS, and examination, it is important to document the specific complaint of the patient, including quotes when possible. The specifics of a patient's presentation are quite variable, and it is important to have an accurate representation of their symptoms as they were presented to you. When a person reviews the chart it should be apparent exactly how the patient presented, the timeline of their disease process, and what findings were present on your physical exam. Because of this, it is strongly recommended to not use templates or macros in these sections of your documentation. A physical exam macro, for example, can easily document incorrect or contradictory findings. A typical mistake would be a macro which automatically populates “no edema” in the cardiovascular section, while the provider then adds “pitting edema” to the MSK section without identifying the automated contradiction. A mistake such as this could call into question the accuracy of the entire chart. Instead, you may consider utilizing either a transcription software service or manually enter this section precisely to maintain the accuracy of your documentation. If scribe services are unavailable or you find yourself spending a large amount of type typing, you may consider utilizing multiple physical exam macros which incorporate more specific findings, such as a specific physical exam macro for URI symptoms only. Physical exam macros will be discussed more in a later chapter. If this method is used, it is important to always review your physical exam after applying a macro, as errors are easy to make.

The second portion of your chart, including MDM, re-evaluation, and disposition, is frequently more standardized. Because of this we can utilize macros to improve the quality of documentation and provide the foundation for our clinical decision making. This includes documentation detailing your medical decision making, re-evaluation, and plans for disposition and follow-up needs.

For example, during a typical shift you may evaluate many patients in which you suspect a pulmonary embolism as a potential diagnosis. In many cases you may mentally use a scoring system and determine immediately the patient is at low-risk and the risk-benefit analysis of these decisions should be included in your documentation. To include this medical decision-making in your chart you can either type a note manually, or quickly add a macro which will populate the
text seen in this video. Specifically, you should address the potential benefits or risks of a decision being made, such as the risk of radiation or the risks and benefits of prescribing an anticoagulant. This discussion identifies the clinical judgement the provider used to determine the best plan of care with the available information. In any potential litigation, inclusion of your clinical judgement will provide the basis for the determination of standard of care. Without your own evaluation of the risks and benefits documented, it is much less clear if you were providing reasonable care. By utilizing a macro, you can clearly state your clinical decision-making process without wasting time repetitively adding the same information to every chart.

The same process can be utilized to quickly document shared decision-making discussions and re-evaluations. Timed reassessment notes can be quickly added with a macro, showing the time of re-evaluation and allowing for a short statement identifying specific findings on re-evaluation, as well as the vitals at the time of re-evaluation. Most EHRs allow for automatic timestamps and content importing, such as the most recent vitals, into a macro. This provides a snapshot of your re-evaluation, including the precise time, current vitals, and any textual updates. Simple additions such as these can quickly improve the quality of your charting while also decreasing the time you spend per chart.

When faced with higher-risk complaints such as lower abdominal pain or chest pain, you can utilize macros to both document your decision-making and ensure no red flags are missed by prompting you for specifics for each individual case. These cases require thorough documentation as there is a potential for litigation from either a missed diagnosis or poor outcome. Preventing anchoring and ensuring complete documentation is the basis for the macros included later in this text, and when completed provide a thorough summary of the patient's findings, risk factors, and evaluation.

While you have already been doing most of these things either in your head or in your charts, specific macros provide a simplified and efficient way of laying out your medical decision making. For a chart to be complete, it needs to be self-explanatory, with a sensible approach and clear decision making. From a legal perspective, if your medical decision-making is not documented or not easily
understood, then it wasn't performed. A well written chart with a discussion of the patient's risks, relevant symptoms, and findings will much more easily demonstrate the quality care you provided.

**MEDICAL DECISION MAKING**

It can be difficult to balance how much information you want to include in a chart, versus what is useful and necessary. Take, for example, a patient who presents with a cough and post-tussive chest pain. This may represent an otherwise healthy, young individual without any cardiac risk factors. In this case, the important part is documenting these negative findings. Providing the reason for not pursuing a cardiac evaluation on a patient with chest pain is just as important as providing the alternative diagnosis. Not every patient with chest pain needs a cardiac workup, but the reasoning should be provided.

Creating a simple list of possible diagnoses is insufficient. Consideration of each potential cause should include reasons it is less likely, such as physical exam, risk factors, lab or imaging, as well as why your final diagnosis is most likely. This discussion should also be balanced with the potential risk of a poor outcome. A diagnosis should never be included in the differential if you have not ruled it out as a potential cause; including aortic dissection in your differential for back pain for an 80 year-old smoker with uncontrolled hypertension without imaging ruling out aortic dissection is a recipe for disaster.

A lack of this documentation calls into question if the provider even considered a cardiac etiology or other less likely but dangerous diagnosis. The final diagnosis provided is important, but you should provide your reasoning for not pursuing alternatives or how alternative diagnosis were ruled out. Remember, as an emergency provider we must rule out the worst-case scenarios first.

**DISCHARGE**

One of the most important sections of your chart is where many providers spend little time, despite it having the highest medicolegal
risk. Discharge instructions and follow-up information is identified in approximately half of all litigation\(^9\). Frequently, discharge instructions are hastily put together and may only include standardized printouts about a patient’s diagnosis. Giving the patient a stack of literature on chest pain without providing specific instructions or summary of care is a significant failure by the provider.

Well written discharge instructions should confer some responsibility onto the patient but it is the provider’s responsibility to ensure the instructions are accurate, complete, and understood. Poorly formulated discharge instructions without appropriate information can be considered a failure of the provider’s duty to warn or negligence.

Every discharge instruction should include specific, actionable information that is customized to the patient\(^9\). This includes a diagnosis, findings from their visit, the specific date or range of time for follow up, and where or whom to follow up with.

The specified follow-up time is important! Instructions such as “Follow-up with an orthopedist when available” is unclear and can result in a delay in future care. Previous court cases have specifically identified the follow-up time in their rulings. In one case, a patient was instructed to return to the ER in two days for re-evaluation of his abdominal pain. He returned 10 days later with a perforated appendix, and the case was dismissed. In a separate case, a patient sustained an injury to a tendon in his hand and given vague follow up information. The patient unfortunately missed the time period for potential reparative surgery, and the provider was held liable\(^10\).

Reasons to return to the ER should be written in easily understood language without medical jargon. The reasons for return should be open-ended to include any new or worsening symptoms but should also address specific precautions in easy to understand language.
For example, a patient diagnosed with epididymitis should be instructed to return if he has a fevers or chills, any skin redness or swelling, or pain that is worsening, as well as any new or changing symptoms. These more specific instructions are to ensure worsening infection, such as Fournier’s, is identified as a cause to return. Another example would be return precautions for a child with otitis media. The parents should be instructed to return if they notice worsening fevers, persistent fevers, increased fussiness or drowsiness, headaches, neck pain, stiff neck, rashes, or redness or swelling of the ear or scalp. These more specific return precautions identify signs of meningitis or mastoiditis, two serious, although rare, potential complications.

If there was an incidental finding on a lab result or imaging study, this should also be included specifically in the discharge instructions and a notification to the patient documented in the chart. A solitary lung nodule that is reported by a radiologist but never identified by the emergency provider can have severe legal consequences. Best practice is to notify the patient verbally, include written documentation in your re-evaluation, and note the finding and specific follow-up in their discharge instructions.

The provider’s disposition discussion with the patient should be documented, including the patient’s ability to understand future needs and when to return. The majority of patients interviewed immediately after discharge from emergency departments have significant deficits in understanding their follow-up care needs. In one study of patients interviewed after discharged from a teaching hospital ED in New York, only 42% were able to name their diagnosis, and only 37% could identify the purpose of medications they were prescribed. These patients typically are unaware of their deficiencies and are at high risk for noncompliance and potential poor outcomes. In complicated cases, it is good practice to have the patient “teach back” their discharge instructions, including findings, diagnosis, and specific needed follow-up. This method is an easy way to quickly identify errors and holes in the patient’s understanding. Keep in mind that many patients may not be able to read their physical discharge instructions; in many areas more than 40% of ED patients cannot read at the 8th grade reading level. For patients who demonstrate a decreased ability to understand, it
is important to identify additional resources, such as contacting a family member or care provider, or providing additional resources through whatever social resources available. If possible, the primary care provider should be contacted in these cases.

REVIEWING THE VISIT

Your documentation is not taken as an isolated document. The entire chart, including nursing, triage, and social work notes will also be included in any potential litigation. For this reason, it is important to identify any inconsistencies across documents. This may be a triage note which includes the complaint of shortness of breath, however the patient denies this on evaluation. In these cases, the original author should be contacted to discuss this discrepancy, and the reason should be noted in the chart when possible. Editing or deleting a note should not be done, as this may appear as attempting to hide information rather than addressing the contradiction. At the least, you should note in your documentation that you have identified this inconsistency and addressed it with either the patient or the other provider. For those working with mid-level providers or residents the same may occur when comparing your diagnosis, exam, or HPI to the mid-level provider.

Documenting to this level of detail is an enormous task, especially for an already heavily burdened provider. Doing so supports the idea that you showed due diligence, careful thought, and adequate consideration to the patient's presentation and treatment, but you cannot realistically be expected to provide this intensive level of documentation for every chart. By identifying patients at higher risk, you can identify a sub-segment of your patients who deserve more thorough documentation. Every upper respiratory or asthma patient may not need an exceptionally thorough MDM discussion, and patients who are admitted typically will need less documentation of ER management and disposition discussion. For those other patients, use the rest of this book to provide an efficiently formed, well written script of the high-quality care you are already providing.

Table 1 Most Common Diagnosis Attributed to ER Claims
<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Percentage Claims</th>
<th>Percentage Paid</th>
<th>Average Indemnity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Myocardial Infarction</td>
<td>5%</td>
<td>42%</td>
<td>$245,314</td>
</tr>
<tr>
<td>Chest Pain NOS</td>
<td>4%</td>
<td>34%</td>
<td>$317,281</td>
</tr>
<tr>
<td>Symptoms involving the abdomen &amp; pelvis</td>
<td>3%</td>
<td>27%</td>
<td>$220,911</td>
</tr>
<tr>
<td>Injury to multiple body systems</td>
<td>3%</td>
<td>31%</td>
<td>$186,567</td>
</tr>
<tr>
<td>Appendicitis</td>
<td>2%</td>
<td>31%</td>
<td>$60,397</td>
</tr>
<tr>
<td>Fracture of the Vertebral Column</td>
<td>2%</td>
<td>30%</td>
<td>$188,413</td>
</tr>
</tbody>
</table>

Table 2: Top 10 Categories of Error Attributed to ED Claims

<table>
<thead>
<tr>
<th>Error</th>
<th>Percent of claims</th>
<th>Percentage Paid</th>
<th>Average Indemnity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error in Diagnosis</td>
<td>37%</td>
<td>39%</td>
<td>$211,449</td>
</tr>
<tr>
<td>No Error Identified</td>
<td>18%</td>
<td>4%</td>
<td>$171,609</td>
</tr>
<tr>
<td>Improper Performance</td>
<td>17%</td>
<td>30%</td>
<td>$137,099</td>
</tr>
<tr>
<td>Failure to supervise or monitor</td>
<td>7%</td>
<td>42%</td>
<td>$211,800</td>
</tr>
<tr>
<td>Failure to perform</td>
<td>4%</td>
<td>42%</td>
<td>$141,109</td>
</tr>
<tr>
<td>Delay in performance</td>
<td>3%</td>
<td>38%</td>
<td>$248,422</td>
</tr>
<tr>
<td>Medication Error</td>
<td>2%</td>
<td>42%</td>
<td>$111,397</td>
</tr>
<tr>
<td>Failure or delay in referral</td>
<td>2%</td>
<td>40%</td>
<td>$187,179</td>
</tr>
<tr>
<td>Failure or delay in admission</td>
<td>2%</td>
<td>42%</td>
<td>$224,061</td>
</tr>
<tr>
<td>Failure to recognize treatment complication</td>
<td>2%</td>
<td>31%</td>
<td>$171,071</td>
</tr>
</tbody>
</table>
CHAPTER 2

Preventing Bouncebacks & Poor Outcomes

Approximately 3% of patients evaluated in the emergency department will ‘bounceback’ within 72 hours. These include patients who were asked to return, such as for a wound check, but also unexpected returns. Of these patients, up to 30% of return visits may be due to medical error\(^\text{15}\). Many bouncebacks are either an atypical presentation of an unusual problem, a decompensation of chronic disease, or a patient who had abnormal vital signs on their initial visit\(^\text{16}\). By developing methods to assess for these risk factors, we can potentially identify and prevent these high-risk discharges. Michael Weinstock does an excellent job of explaining how to prevent these errors in the introduction to his book Bouncebacks! Medical and Legal\(^\text{16}\). I highly recommend both books in his series, go buy them now.

Taking a second look at labs results and reviewing a patient’s chart prior to discharge is one way to ensure you are not potentially missing an atypical presentation of an unusual problem. Many of the medical decision macros included in this text work by ensuring several potential diagnoses are considered prior to discharge. Going through the included differential may identify an unconsidered diagnosis prior to discharge and prevent a misdiagnosis or medical error.

When you do find yourself evaluating a patient who has returned to the emergency department, you have the power to prevent a
potential poor outcome. Consider bouncebacks your chance to completely change the course of treatment and save your colleagues (and yourself) from next month’s M&M. These patients should get your full attention, with a thorough history and examination. Read the previous chart including nursing notes and vitals, then determine if a test should have been obtained which was not, a lab value was missed, or a complaint not addressed. Discuss with the patient the potential for diagnostic uncertainty, and if a primary care provider is available, reach out to them. Consider each bounceback a second chance to improve the patient’s care or make a correct diagnosis.

Building your own macros can help you remember items you frequently forget, such as measuring calf diameter when evaluating for a DVT or considering QT prolongation in syncope patients. Customizing your macros is an important step in efficiently charting and preventing premature closure or a missed diagnosis.

BUFFING THE CHART

Buffing the chart, or cosmetic charting refers to the practice of adding to the chart merely for billing or medicolegal purposes. The term is frequently attributed to Steven Bergman, the physician author of The House of God. A provider may include an extensive review of systems for billing purposes, despite never asking these questions, or document a shared decision-making discussion which either never occurred or was much more superficial than indicated by the chart. Although this is wonderful for billing purposes, some providers will use buffing to erroneously protect themselves from litigation, giving themselves a false sense of security that the written word will somehow be taken as truth. Most attempts at buffing are easy to identify by a plaintiff’s attorney.

Make sure you review any macros or auto text used for review
of systems or physical exams. If you find yourself documenting a conversation regarding shared decision-making or follow-up arrangements and question whether the patient has the same understanding as you do, return to the patient's bedside and rehash the conversation. It is well worth the extra five minutes to confirm their understanding and prevent potential questioning of the honesty of your documentation.

One particularly heinous act of buffing the chart involves adding a “late entry” into a chart after a poor outcome. With the development of EMR's almost every plaintiff attorney will ask for complete access to medical record, including who opened a chart as well as what text was added, edited or deleted. Such late entries are easily identified and scrutinized. In most cases, these types additions only serve to harm your cause and should not be attempted. In many cases, defense attorneys would prefer that you not even open the chart, much less document after-the-fact.

**DOCUMENTING IMPORTANT CONVERSATIONS**

In the course of your work, you will find yourself having difficult conversations about a patient's medical condition, needed follow up, or leaving against medical advice. These conversations may become contentious, and important to both the defendants and plaintiffs if subsequent litigation is pursued. It is important to include concise documentation of these conversations in your chart. Subsequent chapters in this text will go over specific documentation, including leaving against medical advice and providing follow-up instruction. Whenever important conversations occur, you should enlist a nurse to witness the conversation. Afterwards, request the nurse document the conversation in their charting. This not only verifies that the conversation occurred but can verify the specific information provided during the conversation. In many hospitals, nursing and physician staffing is handled by two separate entities, who may both be named in a suit. In these situations, such cohesive charting is important to any litigation involving both partners, as well as providing a firm foundation for your own documentation.

If family members or friends are present, their presence should
be documented as well, and they should be included as witnesses to the paperwork being signed. If the patient is leaving against medical advice, you should document the involvement of family or friends in attempting to have the patient stay. If the conversation does become contentious or lead to an outburst, you should document only after taking a ‘breather’ to ensure you do not document anything in anger which you may regret. Ensure that all of your documentation is objective, and any sort of subjective wording or assumptions are removed. Remember, the goal of your documentation is to prove you provided the best care possible and that your concern was for the patient.
CHAPTER 3

The Case for Macros

With the advent of the Electronic Medical Record came a new paradigm for clinicians and medical staff. The shift to computers permits near instantaneous access to medical records as well as the ability to better organize a patient’s medical history and documentation. The technical advances that allow providers to immediately review old EKGs, outpatient notes, and even the serial number of an implanted device has also burdened clinicians with more documentation requirements. Institutional standards for documentation continues to increase\(^\text{20}\). Within the emergency department this has led to addition expenses such as scribes or dictation software and increased physician hours spent documenting. The time it takes to document a patient interaction may well take as long—if not longer—than the encounter itself. The emergency department is a dynamic and complex environment with significant time-sensitive care being completed with incomplete information. In this environment, documentation frequently suffers. With increasing demand for efficiency, providers frequently find themselves documenting less and failing to provide our clinical reasoning or findings as accurately as we would like.

A macro is a software tool that inputs predetermined text or data when the user enters a phrase. Depending on the software, macros are often called SmartPhrases, DotPhrases, Autotext, or other terms. Each macro can insert a wide variety of patient specific information, lab values, and text. Below is an example of a portion of a chart before I used macros;
In the rush to complete the patient’s chart, there is little to no discussion about the patient’s symptoms, or reasoning behind my care. I do provide a Well’s score, which shows some clinical decision making, however I have not fully addressed the possibility of acute coronary syndrome, and otherwise have ignored other alternative causes of the patient’s pain. Additionally, I fail to mention which Well’s score I am using, and in retrospect I have inappropriately applied the Well’s PE Criteria according to many guidelines. If this patient had gone on to have a poor outcome, I would have little documentation to explain why or how I treated this patient, and my error would call into question the care I provided. Without documentation, it is difficult to prove I provided adequate thought and consideration to alternative diagnoses and potential risks. In contrast, below is a similar patient with the same lab testing, treatment, and discussion of follow-up and return precautions.

In the second case, it took less time to provide more information and I have provided important information about the clinical decision making, shared decision making, and documented why alternative diagnoses were either evaluated by testing or physical exam. This affords a solid foundation if there is a risk management issue and it also provides a clear account for future providers.

As a new intern, I had little knowledge or understanding of what I should be documenting, where specific documentation should go, and how much I should write. Most of my early education was on how to write a chart for billing purposes. While this will prevent the billing department from sending addendum requests, I was writing inefficiently, providing little information, and leaving future providers completely clueless about what I had done during a patient’s visit. By using macros, I became much more efficient in my documentation, leaving extra time to document my clinical decision-making and
improve my discharge instructions. I even have increased the time I have for direct patient care. My use of macros evolved into an entire method of charting, where I now use macros not only to enter frequently used text, but to also provide a mental checklist to ensure I am not missing a potentially serious cause of a common presentation. Macros can not only decrease keystrokes, they can add valuable information to the patient’s chart, prevent anchoring, and ensure the high-quality care you provide is reflected within your chart.

A well written macro can not only provide your medical decision-making and specific evidence for a decision, it can also serve as a reminder of alternative diagnoses, physical exam findings, and shared decision making. With this being said, a macro is not supposed to replace or distort your clinical examination or decision making. Anything you place in the chart should reflect with 100% accuracy the patient’s visit. Simply pasting text into a document will not help the patient, or protect you from litigation, and it is important that in using macros your goal is to improve the accuracy of the chart and, in the long term, improve the outcomes of your patients. This is accomplished by identifying red flags, preventing a possible bounceback or poor outcome, and to also provide clear documentation of your thought process.

COMMON BARRIERS TO MACROS

I don’t know how to make them

The hardest part of using macros is figuring out how to make them and use them. Each software is different; however, most hospitals or agencies provide in-person or online training for their EMR. If offered, I highly recommend taking these courses. The time you spend in these classes you will regain in efficiency.

I don’t have time to make them

By this, most providers are saying they don’t have time on-shift to work on IT issues. I agree. Fortunately, at our institution we are able
to remote-connect from home and have additional computers in non-work areas. Spending 30 minutes after a shift to create one or two macros will easily be recouped within your next shift. Changing your practice pattern may be disruptive for a few shifts, but you will quickly find your own way to create and utilize efficiencies such as macros.

My patients are too complicated

This gets to the point that most providers see macros as a block of text, typically unchanged, that is dumped into a chart. The ability of macros to be customized—quickly—to each patient is lost. Macros work because we do a lot of repetitive documentation. Yes, patients are all different and have complex medical issues, but the decision-making we are doing is frequently very similar. Plus, if you are able to use macros to streamline parts of your workflow, you will be saving time for all those patients who are too complicated.

Your macros wouldn’t fit into how I chart

This is probably true. There are many ways that we have learned to chart, and there is no reason why my method is any better than anyone else’s. But what I hope you can get from my method is inspiration on how you can improve your own charting technique. My goal is not that you will copy and paste all of my phrases into your EMR and create little cloned charts. My goal is that my method will help you in creating and revising your own charting technique. If all you do is import my phrases into your system, you will probably forget to use them, forget to edit them, and end up with charts that have lots of text, but potential errors and omissions. It’s important to take these macros and make them suit your own style of documentation.

I complete my charts after my shift

This might be the one reason I can never understand. Some providers, either when they get busy or just by normal routine, will
leave part if not all their charting until after their shift. I personally cannot imagine being able to remember the specifics of a physical exam or reevaluation after an entire shift, and your charts will now lack timestamps from your re-evaluation and the stepwise progression of your work. If this is you, I would recommend trying to transition to an on-the-go charting technique to ensure more acute, timely, and complete records.

**CONTENT IMPORTING TECHNOLOGY**

As EMR use has expanded, the use of copy and paste functionality has also increased; in one study, more than 89% of pediatric and internal medicine resident and faculty notes contained copied material\(^{21}\). One study assessing the Veterans’ Affairs Hospital EMR found that copy and pasting within charts had tripled during the study period\(^ {22}\). In a 2013 review of 2,068 notes from patients within an academic ICU, 82% of resident notes and 74% of attending notes had > 20% copied information in the assessment and plan\(^ {23}\).

Copy and paste functionality is considered Content Importing Technology (CIT), which includes copy and paste as well as the ability for software to auto-import data into a chart\(^ {22}\). This may include a patient's past medical history, a pre-completed physical exam or review of systems, or even lab and imaging data. Some versions of CIT are useful and improve the efficiency of charting and can present data in useful ways which would otherwise be too time prohibitive. For example, many academic and private centers utilize a customized note template that allows for a more streamlined chart when compared to the deluge of information seen with some standard notes. Procedure notes are also frequently made into a template to ensure the appropriate information for billing is collected and documented, as well as time outs and other safety requirements of the specific facility.

Unfortunately, CIT can also complicate patient care and allow for misuse and the potential risk of billing fraud. Some templates will bulk-import patient data, leading to bloated notes with redundant information, risking the loss of critical information in the haystack. Some EMRs will auto-populate templates including “Complaints” that may include data from previous visits, making it difficult to identify
what specific symptoms the patient presented with. The ability to “copy forward” a note, either from a medical student or from a different day of care, can misrepresent the treatment or assessment of the patient, as well as the level of care provided. For patients with complex medical issues, copying forward a previous day's plan can lead to significant morbidity without a meticulous review by the provider. Errors such as prolonged antibiotic courses, duplicated medications or imaging and other simple mistakes are, anecdotally, common. Most providers have surely identified a murmur on a patient, only to review previous notes to find a macro-imported physical exam which identifies normal heart sounds, and example of CIT being used to auto-populate physical exams.

In one documented case, a patient hospitalized with a cervical vascular malformation was being evaluated by Physical Therapy. The daily progress notes by the physician showed no change in symptoms or physical examination. After four days of the physiotherapist and nursing staff documenting a decline in motor strength, the physician ordered a neurosurgical consult and the patient went on to have decompressive surgery, however she had persistent incomplete quadriplegia. The defense experts determined that copy and pasting resulted in the physician's identical progress notes. Prepopulating and copy/paste functionality is identified in up to 14% of litigation in which the EMR was a contributing factor to the claim.

To help combat the potential for billing misuse and safety concerns many EMRs now collect attribution data on patient’s charts, acting as breadcrumbs of which specific provider added, pasted, or deleted text and when the action was performed. The US federal government has also taken an interest in CIT, issuing a Medicaid warning that “cloned” documentation would be considered a misrepresentation of the requirements for coverage of services rendered. Specifically, CMS has banned the use of student notes for billing and are identifying copied or identical notes across services or visits as potential fraud (As of early 2018, this appears to be changing, and some student notes may be allowed if created under the supervision of a resident or attending). One recent case involved a home-health service which utilized cloned documentation during their visits, netting $23,511,756 in fraudulent payments.
The judicious use of CIT and create efficient, well thought-out and usable charting however it can be easy to slip into creating bloated documentation that may be “up-coded” for billing or lead to potential fraud or abuse penalties. As a best-practice, it is recommended that you do not clone or duplicate charting, copy or duplicate charting from an unlicensed provider, or create additional content for reimbursement requirements.

<table>
<thead>
<tr>
<th>Best Practice for Using CIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid copying consultant notes directly</td>
</tr>
<tr>
<td>Never represent a student note as your own</td>
</tr>
<tr>
<td>Import recent vitals or useful labs</td>
</tr>
<tr>
<td>Avoid auto-importing historical labs or imaging reads</td>
</tr>
<tr>
<td>Never copy from a previous History of Present Illness</td>
</tr>
<tr>
<td>Remove bloat and redundant information from templates</td>
</tr>
</tbody>
</table>

**THE GREAT FLAW OF MACROS**

Many providers have lived through multiple versions of paper and electronic medical records and have seen the flaws of each system. Typically, when I mention the use of macros or content-importing technology, these physicians will push back, concerned that dumping text into a chart will merely add bulk without content and potentially lead to falsification of the medical record. The great flaw of using electronic medical records is the ability to be lazy. There is nothing easier than quickly putting a paragraph of vaguely worded text into a chart and calling it a day. EMRs make this very easy to do. I can easily type “.ekreeval” and the note suddenly includes “I discussed today’s results, findings, treatment, as well as needed follow-up with the patient. I answered additional questions, and the patient was
agreeable with the plan of care.” Yet, if I don’t get up from my desk and sit down with the patient to have this conversation, then I have failed to provide the care I promised.

Like a new toy, learning how to insert text and create macros can quickly lead to a voracious need to constantly paste all kinds of text into your chart. Building a large, impressive chart will scare aware litigation, right? You could easily be opening yourself to more issues. Imported text is easily identified both by merely reading the content and by utilizing the data collected by the EMR when content is typed versus pasted or inserted. Discovering that a patient’s chart has been built by mostly pasted generic material sounds like a plaintiff’s dream.

The goal of this book is to provide a system of creating efficient and useful charts but remember that your chart must reflect the specific and exact care you provided. Rarely do I recommend using a macro that does not need further editing or text input, since rarely are cases so similar you should be using the exact same text. As you build your own macros and charting style, remember to ask yourself; are you being lazy, or are you being efficient?

**DEALING WITH DIAGNOSTIC UNCERTAINTY**

When writing a re-evaluation note consider the decision-making process, re-consider the differential diagnosis, and re-examine the patient. You should write a re-evaluation note on all high-risk patients and those with potential diagnostic uncertainty. Document the clinical decision-making with which you decided upon the treatment plan and why high risk or alternative diagnosis are less likely. Include an in-depth exploration of the patient’s symptoms including onset and duration, quality and severity, as well as your physical examination. Discuss the top items you are attempting to
‘rule out’. For example, patients who present with headache have several high-risk potential diagnoses such as subarachnoid hemorrhage, tumors, and meningitis. You should consider each of these in your re-evaluation. “The patient’s headache was not sudden in onset or severity, without a sharp quality or involving the occiput” would be one way to discuss why SAH is less likely, utilizing well known common presentations of patients with SAH. “The patient is afebrile, without any history of known sick contacts, recent fevers or rashes, recent travel. They are up-to-date on immunizations, without history of immunosuppression, and physical examination is reassuring without signs of meningismus. Lab work today shows no leukocytosis, and vital signs including temperature are all within normal limits” is an example of how to consider meningitis in the differential.

• Discuss uncertainty with the patient and make them partners in the decision-making process. Document this discussion in the chart.
• Repeat your physical examination whenever there is a change in clinical status, including improvement in symptoms.
• Identify and reassess abnormal vital signs. Document improved vital signs in the chart and provide an explanation for abnormal vital signs.
CHAPTER 4

Organizing Macros

NAMING & REMEMBERING MACROS

Organize your macros in a standard form to make it easier to access macros quickly without having to remember each individual name. Keeping your macros organized eliminates the need for memorization, as you can quickly access a short list of macros within a specific topic. This is important because you will never utilize macros if you don’t remember you have them or how to quickly access them.

There are multiple ways to organize macros. One example is a hierarchy starting with your initials and then splitting into usable groups. Following your initials the macros can be grouped into the location the macro is used or the overall function of the macro. For example, my medical decision-making macros are grouped together while physical exam macros are grouped separately, and discharge instructions are within a third group. Utilizing your initials or a single letter first will allow all your macros to immediately display on screen as a scrollable list. Adding your initials will also help when sharing macros, which is easily done in several EMRs. You can then isolate macros by category, such as “dc” for discharge, “mdm” for medical decision making, and so on. Do not use capital letters as some EMRs are case-specific. This allows you to quickly find a range of macros used within the specific location of the chart.
In large categories, such as medical decision making, you can further categorize macros depending on the disposition. Above, I have three different chest pain medical decision-making macros, making it much easier to get the correct macro without memorizing the specific phrase.

When macros are shared to other users the name is typically kept the same, so by using your initials in the shortcut, you can help prevent other users from accidentally activating a macro during normal typing. It will also allow the other user an easy way to identify macros which you have shared to them.

Initially you may find it difficult to remember your macros but once this system becomes part of your normal routine you will find
few charts where a macro is not suitable or useful. After you have been using macros comfortably, I strongly recommend customizing each phrase to your own style and creating your own phrases. By customizing and building your macros you will be more likely to utilize them in your daily charting.

USING PLACEHOLDERS

Most EMR systems have a mechanism to ‘jump’ to placeholders. In EPIC, this is done by pressing F2, which will move your cursor to the next area of three asterisk (**). In CERNER, this is done by pressing F3, which will move to the next single underline (_). When using Dragon Medical dictation software, [brackets] are used in the same way. By including a placeholder in your macro, it identifies somewhere you want to either customize or confirm each time you use the macro. I utilize this to prevent myself from adding inaccurate findings into a patient’s chart, or to quickly add text to customize the macro.

Here, you can see an example of my macro for initial evaluation of intoxicated patients. There is an underline to prompt me to identify the intoxicant, as well as an underline being used to remind myself to ensure a point-of-care glucose is documented.

Another example of placeholder use is in this mild asthma macro where multiple placeholders are used double-check the accuracy of the text. I can quickly insert the macro and skim it, removing each placeholder by either hitting delete, or adding text where appropriate. I also list a short differential which I have considered but ruled out due to the history and exam findings. The note includes my
re-evaluation of the patient and discussion including follow-up and return precautions. Although the placeholders do require more time to complete the macro, it ensures that I am accurately documenting each encounter. In EPIC, you typically cannot close or sign a chart without removing all triple asterisks, however this is not the case in CERNER, where you will need to be careful to ensure all prompts have been answered.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>09/04/2017</td>
<td>15:59</td>
<td>Patient presents with expiratory wheezing and cough, tachypnea similar to prior asthma exacerbations. Previously diagnosed with asthma. Has been intubated previously, and previous ICU admissions for asthma. Smoker. Unlikely PNA, CHF, COPD, foreign body, or GERD given history, vitals, and physical exam. No AMS, belly breathing, or other signs of ventilatory failure, able to speak full sentences. Oxygen saturation on arrival. Improved with nebulized albuterol and ipratropium and steroids. FEV ... Given improvement in symptoms with treatment, will DC home w/ return precautions and continued albuterol and steroid use as discussed at bedside and per pt PCP follow up. -EK</td>
</tr>
</tbody>
</table>
The most basic use of macros is to input common words or complex medical terminology. These macros typically do not fit into the organizational hierarchy already discussed. In those situations, two periods can be used to organize these phrases. Because these are more difficulty to organize, it is best to create these based on your own documenting tendencies.

**Time stamp (.now)**
Provides the current date and time utilizing a built-in Cerner preset.

**Vitals (.vitals)**
System generated macro that provides the latest vitals and time.

**CABG (.cabg)**
 Coronary artery bypass grafting

**NV (.nv)**
Nausea and vomiting
SOB (.sob)

Shortness of breath

DM (.dm)

Diabetes mellitus

TNW (.tnw)

Tenderness/numbness/weakness

REY (.REY)

Roux-en-Y gastric bypass procedure

PNA (.pna)

Pneumonia

Blood Thinner (.bloodthinner)

Denies use of anticoagulation medications including aspirin, heparin, lovenox, or novel anticoagulants.

Uncooperative (.unc)

The patient is uncooperative with further questioning

Attestation (.attest)

I performed a history and physical exam of the patient, discussed management with the resident/advanced provider, reviewed the note above, and agree with the plans as written.
Documenting negative review of systems results, symptoms, or physical exam findings is often just as important as documenting what findings are present. Typically, documenting negative findings can require a large amount of typing, as there are usually multiple symptoms together, such as “nausea, vomiting, or diarrhea” or “sore throat, cough, change in voice, dysphagia, odynophagia, neck swelling”. You can quickly decrease the amount of time it takes to clearly document negative findings by grouping these by common systems and inputting the appropriate groups into the chart.

By isolating these macros by body system, it is easier to prevent accidently documenting a negative exam finding when, in fact, there is a positive exam finding. This is in contrast to a software-based template, which may automatically populate both positive and negative findings across all body systems which the provider may overlook.

Negative ROS findings can be organized as their own group within your macros. This would look like: .rnegthroat (ROS>negative > throat) or .negrthroat (negative>ROS>throat) which would input “the patient denies sore throat, cough, change in voice, dysphagia, odynophagia, or neck swelling”.

Negative physical exam findings can be organized in a similar manner; .negpeabd (negative >physical exam > abdomen) or .penegabd (physical exam>negative>abdomen) which would input
“the abdomen is soft, nontender, and nondistended, with _ surgical scars”. In this case, there is a placeholder, because I frequently forget to document surgical scars, and this placeholder reminds me to document either the lack of scars or the presence of a scar.

Certain negative physical exam findings are very specific. Two examples are my negative head and neck for trauma patients. They both incorporate important findings for clinically clearing a cervical spine or determining the need for further CT imaging. In this case, the head exam includes a negative tympanic membrane exam, something I would otherwise not recommend including in a macro, given this is otherwise not a common exam step.

Click to see a negative exam video example
<table>
<thead>
<tr>
<th><strong>Negative Review of Systems Findings</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>negrheadache</strong></td>
</tr>
<tr>
<td><strong>negrent</strong></td>
</tr>
<tr>
<td><strong>negrthroat</strong></td>
</tr>
<tr>
<td><strong>negrlnug</strong></td>
</tr>
<tr>
<td><strong>negrheart</strong></td>
</tr>
<tr>
<td><strong>negrbowel</strong></td>
</tr>
<tr>
<td><strong>negrmstk</strong></td>
</tr>
<tr>
<td><strong>negrapy</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Negative Physical Exam Findings</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>negpehead trauma</strong> <strong>Head, Trauma</strong></td>
</tr>
<tr>
<td><strong>negpeneck trauma</strong> <strong>Collar Clearing</strong></td>
</tr>
<tr>
<td><strong>negpehead medical</strong> <strong>Head, Medical</strong></td>
</tr>
<tr>
<td><strong>negpeear</strong> <strong>Ear</strong></td>
</tr>
<tr>
<td><strong>negpeeye</strong> <strong>Eye</strong></td>
</tr>
<tr>
<td><strong>negpechest</strong> <strong>Chest</strong></td>
</tr>
<tr>
<td>Section</td>
</tr>
<tr>
<td>-------------------------------</td>
</tr>
<tr>
<td><strong>Abdomen</strong></td>
</tr>
<tr>
<td><strong>Male Genitalia</strong></td>
</tr>
<tr>
<td><strong>Female Genitalia</strong></td>
</tr>
<tr>
<td><strong>Knee Trauma</strong></td>
</tr>
<tr>
<td><strong>Ankle</strong></td>
</tr>
<tr>
<td><strong>Leg exam for DVT</strong></td>
</tr>
<tr>
<td><strong>Neurologic Exam</strong></td>
</tr>
</tbody>
</table>
CHAPTER 7

Medical Decision-Making Macros

Each macro below has been built to assist you in summarizing a patient’s presentation, build your differential, and prevent anchoring on a diagnosis, by adding your reasoning or studies for eliminating alternative diagnosis. Each macro should be customized to each individual patient, and as such, most macros contain “_” , which can be highlighted in CERNER by hitting F3, quickly moving to each underlined area. (This can be replaced with *** to work with EPIC in the same way, while substituting F2 to jump forward). These spaces allow for customization and are typically added to remind the provider about important exam steps, history, or other parts of the patient’s examination. In addition, EPIC has much more customizable options, including the ability to use drop-down menus to select multiple options of pre-determined text. EPIC’s customization tools are very powerful, and I would highly recommend taken a course if you frequently use EPIC.

SYNCOPE (.MDMSYNCOPE)

Given there are currently few evidence-based decision-making tools to guide your practice, syncope patients can be difficult to appropriately evaluate and diagnose. In 40% of cases these is no identified cause. Although most commonly either vasovagal or orthostatic in nature, cardiac, neurogenic, and medication causes should be ruled out. This macro highlights several risk factors and signs of cardiac syncope, and reminds the provider about several
important items, including new murmurs, short or prolonged QT, risk factors for pulmonary embolism, and other secondary causes of syncope. The text also provides risk factors which should prod the provider to consider admission, and provides your clinical reasoning for not getting CT imaging for either trauma or syncope evaluation as ACEP policy27.

Because cardiac syncope has the highest mortality, this macro focuses heavily on the EKG findings in syncope, including some of the most-missed diagnosis. For this reason, the macro prompts you to check the QT length (long or short QT syndrome), and highlights several other potential diagnoses to ensure you consider less likely—but very harmful—diagnosis such as Brugada, Arrhythmogenic Right Ventricular Cardiomyopathy, and Wolff-Parkinson-White Syndrome.

The San Francisco Syncope rule is the current best-studied guideline for syncope patients, however it is not yet validated. The rule is 96% sensitive and 62% specific for serious outcome28. An attempt to validate the rule found a sensitivity of only 74%29. Additionally, serious outcomes were limited to 30 days in the original study. The rule consists of 5 questions, and a positive response to any removes them from the low-risk category, indicating you should consider admitting the patient. The questions are; any history of CHF, a hematocrit <30%, an EKG that is changed from previous or non-sinus, shortness of breath, or a systolic BP <90mmHg at triage.

The 2016 PESIT trial, a multicenter cross-sectional study from 11 hospitals in Italy made newspaper headlines when it was first published30,31. Headlines highlighted the claim that pulmonary emboli were found in 1 in 6 patients admitted for syncope. The study suffered from many limitations, and their final “1 in 6” figure didn’t consider the 1,867 patients discharged from the emergency department. When these patients are included in the data, the rate of pulmonary embolism in all-comers is a more typical rate of pulmonary embolism, and within the 5-10% we see in the United States. Because of the wide-spread press, more patients may present requesting evaluation for a blood clot.

Keep in mind there are additional causes of syncope not discussed in the macro, including aortic stenosis or dissection, anemia, GI
bleed, or ectopic pregnancy, and you should always consider a pregnancy test on every female with syncope.

Patient here with syncope/near syncope. Seizure is less likely given the history and exam. No neurologic deficits on exam indicating a stroke, and no signs of head trauma or injury. Given no signs of trauma or neurologic deficit, I will withhold further imaging of the head per ACEP Choosing Wisely Recommendations. Additionally, the ACEP clinical policy on syncope evaluation recommends laboratory testing and advanced investigative testing such as echocardiography or cranial CT scanning need not be routinely performed unless guided by specific findings in the history or physical examination.

Patient’s history includes _ prior syncopal events, _ CAD, _ DVT/PE, _ seizures. Regarding today’s event, there was _ prodrome, _ recurrent episodes, _ prolonged loss of consciousness, and _ chest pain associated with the event. Cardiac evaluation today shows _ murmur, _ JVD, _ peripheral pulses and _ lower extremity edema. EKG today _ without signs of Brugada, delta wave concerning for WPW, epsilon wave concerning for ARVC, or signs of right heart strain such as anteriolateral T wave inversions or a new RBBB. QT length today _ _ PE risk factors. Neurologically _. Blood glucose _ _ signs of hypoxia during event or currently, and _ intoxication complicating the patient’s presentation.

The patient has _ history of CHF, _ shortness of breath, and triage systolic blood pressure _ greater than 90mmHg.
SAN FRANCISCO SYNCOPE RULE (.MDMSANFRAN)

CHF History
Hct <30%
EKG Abnormality
SOB
SBP < 90 mmHg at triage

ATRIAL FIBRILLATION

Atrial fibrillation is one of the most common arrhythmias seen in the emergency department, and there are several medications which can be used safely to treat both new onset atrial fibrillation (NOAF) and atrial fibrillation with rapid ventricular response (AFRVR). Atrial fibrillation is prevalent in approximately 1-4% of the population, and the incidence doubles in every decade of life\textsuperscript{32}. The most common issues with AF are the associated morbidities; embolic strokes, decreased exercise tolerance, and tachycardia-induced myopathy, which occurs with a heart rate that is sustained greater than 110.

The Framingham study found that patients with AF were at an annual risk of stroke of 5%, from which we delineate the current strategies of balancing the risk of stroke versus the risk of hemorrhage and brain bleeding. The most recent scoring system is the CHA2DS2-VASc, which was derived from the National Institute for Health and Clinical Excellence risk stratification schema in 2009, and validated in multiple trials since.
Pt here with new onset irregular HR, EKG with atrial fibrillation. _ known underlying etiology, _ history of heart failure, cerebrovascular accident, hyperthyroidism, _ symptoms of infection, unlikely ischemic given _. I will obtain basic labs and assessed for infection with _ UA, CXR, as well as cardiac markers (Trop and BNP), TSH. _ Uncertain historical reliability as to the time of onset; will defer cardioversion. Plan vagal maneuvers followed by 0.25mg/kg Diltiazem if rate is not controlled <110. Pending rate control will determine need for anticoagulation using the CHADS2 and consider for _ outpatient follow-up vs admission.

- CHA2DSVASC score = _
- Score 0 Low risk, (none seen in cohort at one year)
- Score 1 Intermediate risk (0.6% rate at 1 year) Consider antiplatelet or anticoagulation
- Score >1 High Risk (3% rate at 1 year) Should be an anticoagulation candidate

Pt here w/ irregular HR, EKG with irregularly irregular rhythm, with a ventricular response greater than 110 BPM. Time since onset _. Current anticoagulation as outpatient _. On initial evaluation the patient showed no signs of hemodynamic instability despite rapid heart rate; patient is mentating well, no dyspnea, no chest pain, and BP stable. Patient has _
history of Afib previously documented. The patient's EKG does not show a widened QRS or heart rate approaching 300BPM, which would be concerning for WPW, and no history of WPW is reported. Plan to control rate with IV Diltiazem with IV push, if unsuccessful will place on dilt gtt. If pt becomes unstable will cardiovert with synchronized cardioversion starting at 200J. Labs including Mg and _ TSH pending.

**ALTERED MENTAL STATUS (.MDMAMS_BLANK)**

Altered mental status has an expansive differential, and requires a thorough history, physical exam, and diagnostic workup. Given the frequency an emergency physician may see some causes (intoxication, overdose, infection) it is important to remind ourselves of some less likely diagnoses. This macro is quite basic, and may be better served for new residents, or for the end of a long shift when your decision-making capacity is limited. It provides a stepwise approach to the common causes of altered mental status and coma, to ensure that your initial diagnostic evaluation has not been limited.

Patient presenting with altered mental status, Hypoxia vs. Infection vs. TIA/stroke vs. Metabolic/Toxic. Dementia an unlikely cause given rapidity of onset. Trauma unlikely given the physical examination without signs of trauma, and no known history of recent falls or trauma.

**Hypoxia:** ED O₂ sat _ nonhypoxic, _ respiratory distress, CXR shows _, there are _ known PE risk factors for the patient

**Infection:** The patient is _afebrile, heart rate _<90, respiratory rate <20,
and WBC 4-12,000. Urine and blood cultures not suggestive of meningitis

**TIA/stroke:** At this time, there is no known history of TIA or stroke, no focal findings on physical exam. CT head.

**Metabolic:** On initially presentation, glucose is normal, there are no signs of ESRD/dialysis dependence, no history of hypo or hyperthyroidism, and TSH normal. Electrolytes normal, there is no known history of recently started or stopped medications. The patient is not known to be on chronic steroids. Tox screen normal, no reported ingestions. There is no recent chemotherapy or immunosuppressive treatments.

### ALTERED MENTAL STATUS (INTOXICATION) (.MDMAMS_TOX)

Patient presenting with altered mental status, Hypoxia vs. Infection vs. TIA/stroke vs. Metabolic/Toxic. Dementia an unlikely cause given rapidity of onset. Trauma unlikely given the physical examination without signs of trauma, and no known history of recent falls or trauma.

**Hypoxia:** ED O2 sat 100% on RA nonhypoxic, no respiratory distress, CXR deferred, there are no known PE risk factors for the patient

**Infection:** The patient is afebrile, heart rate <90, respiratory rate <20, and WBC 4-12,000. Urine and blood cultures deferred. Physical exam findings not suggestive of meningitis

**TIA/stroke:** Currently, there is no known history of TIA or stroke, no focal
findings on physical exam. CT head deferred given risk of radiation and alternative diagnosis likely.

**Metabolic:** On initial presentation, glucose is 120, there are no signs of ESRD/dialysis dependence, no history of hypo or hyperthyroidism. Electrolytes WNL, there is no known history of recently started or stopped medications. The patient is not known to be on chronic steroids. Tox screen deferred, as no reported ingestions. There is no recent chemotherapy or immunosuppressive treatments.

**ANAPHYLAXIS (MDMANAPHYLAXIS)**

Anaphylaxis is a serious disease with rapid and progressive symptoms, which can quickly lead to airway compromise and death. Each year, partially 1500 people die of anaphylaxis in the United States. Failure to identify failure to rapidly identify patients with anaphylaxis may lead to significant delays in care. In the simplest definition, anaphylaxis is considered to be a reaction involving two different systems, such as the skin and airway, or the skin and mucosa. Specific diagnostic criteria, however, are important to ensure the validity of data regarding epidemiology of anaphylaxis as well as research being done, such as identifying patients at high risk for biphasic reactions. The National Institute of Allergy and Infectious Diseases and the Food Allergy and Anaphylaxis Network (NIAID/FAAN) have created the most universally accepted diagnostic criteria at this time. These criteria are very sensitive but nonspecific for identifying patients with an anaphylactic reaction in comparison to the gold standard of an allergist’s diagnosis. The criteria include three separate potential criteria for anaphylaxis, all involving some type of skin, mucosal, or respiratory symptoms.
Anaphylaxis is likely when any of the following criteria are present:

- Acute onset of illness with involvement of the skin, mucosal tissue, or both and at least one of the following:
  - Respiratory compromise (dyspnea, wheezing, bronchospasm, stridor)
  - Reduced arterial blood flow or associated symptoms of end organ dysfunction

- Two or more of the following occurring rapidly after exposure to a potential allergen:
  - Involvement of the skin or mucosal tissue.
  - Respiratory compromise (dyspnea, wheezing, bronchospasm, stridor)
  - Persistent gastrointestinal tract symptoms

- Reduced blood flow after exposure to a known allergen:
  - In children, an age-specific hypotension or 30% drop in systolic blood pressure.
  - In adults, a systolic blood pressure less than 90mmHg

Once identified, treatment includes rapid administration of epinephrine, followed by the utilization of steroids and other history and blockers. Epinephrine and volume resuscitation should not be delayed by the administration of additional medications. Steroids and H1 antihistamines are frequently given to prevent a biphasic reaction, however there are few studies comparing steroids or H1 blockers to placebo or no treatment. Biphasic reactions occur in approximately 1% of anaphylactic reactions, although some retrospective reviews identify biphasic reactions in as high as 23% to as low as 0.18% of cases. Some clinical characteristics (see figure) may identify patients at risk for a biphasic reaction, however these are based only on systematic review of case reports. Biphasic reactions were previously thought to be due to a persistent reaction continuing after initial treatment, however it is now believed to occur due to either recruitment of additional cells to the site, or activation of secondary inflammatory pathways resulting from the initial mediator release. Due to the inability to predict who may have a
biphasic reaction, some of which occur up-to 72 hours after the initial episode, there are variable recommendations for observation in the ER\textsuperscript{37}. Although some guidelines recommend 24-hour observation, most recommend 4-10 hour observation periods, despite no evidence that clinically relevant reactions may occur during this time period\textsuperscript{39}. The European Academy of Allergy and Immunology recommends 6-8 hour observation for children with respiratory symptoms, and a 24-hour observation for children presenting with hypotension\textsuperscript{40}. Given the lack of evidence, the American Academy of Allergy, Asthma, and Immunology guidelines state the observation period should be individualized\textsuperscript{38}. In patients with good health literacy and the ability to rapidly return or seek care, it is reasonable to discharge earlier than the traditional 4-6 hour window once appropriate discharge instructions and return precautions have been given.

<table>
<thead>
<tr>
<th>Clinical Characteristics of Biphasic Allergic Reactions\textsuperscript{4,37}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orally administered antigen</td>
</tr>
<tr>
<td>Reaction occurring while on a Beta-Blocker</td>
</tr>
<tr>
<td>An elderly individual or history of cardiac disease</td>
</tr>
<tr>
<td>Delay in onset of symptoms &gt; 30 minutes after administration of antigen</td>
</tr>
<tr>
<td>Presence of hypotension or laryngeal edema</td>
</tr>
</tbody>
</table>

*There are no consistently reported risk factors or consensus*

Patient presenting after exposure to _ in anaphylaxis with _ skin symptoms, _ respiratory symptoms, and _ blood pressure. After initial treatment with epinephrine, the patient has had improvement of their symptoms. Their initial presentation did not include hypotension, stridor, or significant laryngeal edema. The patient is _ taking a beta blocker, and did _ require additional doses of epinephrine. I discussed with the patient the potential for a rare biphasic reaction, as well as return precautions. I provided the patient with an epinephrine prescription and will discharge with allergy followup.
SHUNT EVALUATION (.MDMSHUNT)

Patients with shunts may be a relatively rare presentation for many providers. Having a specific way to document each shunt evaluation is important to ensure important information is not missed. Most patients with shunts have a specific provider with which they follow closely. These providers may revise the shunt in an outpatient setting, leaving no paperwork trail in your system. Such revisions may include alteration of the flow from the shunt. It is important to ask the patient about not only who placed the shunt and when it was placed, but also the model as well as when the last time it was revised. Different models have differing valves which impact how the shunt operates and how it should be tapped. By completing this macro prior to consultation, it ensures that you have all the needed information for your consultant.

Patient presentation is concerning for a potential shunt failure. The shunt was placed for _ communicating hydrocephalus, model is _, and was last revised _. The shunt is located on _ and on exam _.

GASTROINTESTINAL BLEED (.MDMGIBLEED)

Not every upper G.I. bleed presents the same, and it can be difficult to determine the level of care required when admitted. The Glasgow-Blatchford score and the AIMS65 score can be utilized to assess the patient to determine whether they require ICU versus floor management. Remember these are not used to determine if the patient should be admitted or discharged, but to decide what the
appropriate level of care is once the admission decision has been made. Obviously, any patient who requires hemodynamic resuscitation will most likely benefit from ICU admission.

The Glasgow-Blatchford score has been validated in multiple studies and has better sensitivity than the Rockall score$^{41}$. Recently, the Glasgow-Blatchford score has been replaced by many providers with the AIMS65 score, a simpler scoring system which was derived from a larger population database and is better at predicting mortality, however the GBS is still better at predicting the need for transfusion$^{42}$. Since the original validation of the Glasgow-Blatchford score, some studies have shown that patients with a GBS of zero may be safe for discharge$^{43}$. Some more recent data indicates patients with a GBS greater than 7 may benefit from urgent endoscopy$^{44}$.

**Glasgow-Blatchford Score:**

BUN:
- $<18.2 = 0$
- $18.2-22.3 = 2$
- $22.4-28 = 3$
- $28-70 = 4$
- $>70 = 6$

Hemoglobin (Men)
- $>13 = 0$
- $12-13 = 1$
- $10-12 = 3$
- $<10 = 6$

Hemoglobin (Women)
- $>12 = 0$
- $10-12 = 1$
- $<10 = 6$

Systolic Pressure
- $>110 = 0$
LOW RISK CHEST PAIN (.MDMCXP_LOW.RISK)

Patients presenting with low risk chest pain and angina equivalents but do not have any objective evidence of acute coronary syndromes require a higher level of documentation as this is a high-risk disposition both medically and legally. Currently, 2-4% of patients with ACS are discharged from the emergency department, and 10-30% of missed ACS results in lawsuit payout. Myocardial infarction is the most common missed diagnosis in litigation. Females, younger patients, and those with fewer risk factors are more likely to be unsuitably discharged. There is no current ACEP clinical policy for low risk chest pain patients.

The HEART score was developed as a method to risk-stratify these patients and better determine which patients may be safe for discharge. The HEART score includes History, EKG, Age, Risk factors, and Troponin in a scoring system. Those with a HEART score of 3 or less, were found to have a risk for Major Adverse Cardiac Event (MACE) of 3% within 45 days. The HEART score was validated in
2013 in a prospective study which put the risk of MACE at 1.7% in 6 weeks for low-risk patients\(^4^7\). Given the current miss rate of 2-4%, the HEART score may aid in identifying patients who may require further evaluation.

The HEART Pathway combines the patient’s HEART score with two serial troponins at zero and three hours. Observational studies show 20% of patients with chest pain can be safely discharged utilizing this protocol, while maintaining a negative predictive value of MACE at >99\(^\%\)\(^4^8\). This is a lower rate of MACE than the traditional HEART score alone (1.0% versus 1.7%)\(^4^9\). When evaluating a patient using the HEART Pathway, it is important to realize this is not a “Rule Out” as even low risk patients who are potentially going to be discharged still have a 1-1.7% risk of MACE, and this should be communicated to the patient\(^4^6\). The best way to utilize the HEART Pathway is as the basis for a shared decision-making discussion. In some studies, physical handouts with graphics to depict NPV and risks, have been shown to increase patient knowledge and decrease admission rates\(^4^6,5^0\). With or without visual aids, your discussion with the patient must include the real risk of MACE and the need for rapid follow-up with a cardiologist.

Patient’s HEART score 0-3, with risk of MACE 2% within 4 weeks. Other potential causes of the patient’s presentation were considered; PERC _!. Well’s _!. Pain not consistent with aortic etiology. Physical exam reassuring without signs of pneumothorax, pulmonary infection, heart failure exacerbation, or respiratory failure. Initial troponin negative. I discussed with patient the results and possibility of approximately 2% of an adverse cardiac event within the next 4 weeks including MI, permanent disability, or death. I offered admission for further monitoring, versus outpatient follow-up with cardiology within the next 5 days. The patient voiced understanding of the risks and benefits of both admission and discharge with rapid follow-up. I discussed return precautions as well, including chest pain, shortness
of breath, nausea, near syncope, or other concerning symptoms. After this discussion, the patient elected to _.

**3. Your Personal Risk Evaluation**

If your repeat blood test is negative, your risk of having a heart attack or heart complication within the next 30 days can be determined by comparing you to people with similar risk factors.

For every 100 people with risk factors like yours who came to the Emergency Department with chest pain…

- 1 had a heart attack or heart complication within 30 days
- 99 did not.

**4. Next Steps**

You play the most important role in your healthcare. Along with your treatment team, you can decide on one of three options:

- You can repeat a blood test, and if negative, be discharged with follow-up with your primary care physician or a cardiologist.
- You can be placed in observation and admitted to the hospital for monitoring and potentially further testing. Not every patient admitted to the hospital will undergo further testing.
- You can decline the repeat blood test and be discharged with follow-up with your primary care physician or a cardiologist. In this case, your risk for a heart attack or complication increases to about 2 out of every 100 patients.

**HIGH RISK CHEST PAIN (.MDMCXP_HIGHRISK)**

Patients with HEART scores greater than 3 are typically too high risk for discharge and should be considered for admitted for further evaluation and probable objective cardiac testing. This text aids the provider in ensuring alternative causes other than ACS are considered, including pneumonia, pneumothorax, COPD, aortic dissection, heart failure or pulmonary embolism, all diagnoses which could easily be misdiagnosed and admitted for ACS rule out.
Patient presents with history of _ and chest pain for _ day that is _typical. PERC _. Pneumonia or pneumothorax less likely given _ CXR findings, no leukocytosis, afebrile, _shortness of breath, no cough. Pain _ consistent with aortic etiology. Physical exam reassuring without signs of pneumothorax, pulmonary infection, heart failure exacerbation, or respiratory failure. No dysphagia or history concerning for gastric or esophageal etiology. Unlikely tamponade given EKG and _ CXR. EKG shows no signs of STEMI, although cannot completely r/o NSTEMI or unstable angina given history and only _ troponin thus far.

Plan to treat pain with NTG, antiplatelet therapy with ASA, and admit to cardiology for monitoring and consideration for cardiac testing.

STEMI CHEST PAIN (.MDMCXP_STEMI)

Patient presents with _. A cath attack was called due to _. CXR and labs were ordered, ASA, Nitro _, oxygen _. Heparin 5000 IV _ and considered for beta-blocker and ticagrelor vs. immediate transfer to cath lab.

HEADACHE(.MDMHEADACHE)

The differential diagnosis in patients presenting with headaches is lengthy and could easily cause a headache itself. Patients with
obvious causes of their headaches are seemingly rare and relatively easy to identify. Less obvious clinical presentations are much more common, and potentially easy to overlook. Overall, headaches account for approximately 2% of all emergency room visits, with 14% of patients receiving imaging. Patients with new abnormal neurologic findings on exam, a new, sudden-onset severe headache, or those who are immunocompromised with a new type of headache should all be considered for CT imaging. Additionally, those older than 50 with a new headache but reassuring examination should also be considered for potential imaging, either during the visit or scheduled prior to discharge.

The term “Thunderclap” was first used in 1986 to describe an intense, sentinel headache concerning for a potential cerebral aneurysm, thought to occur due to the initial leak of blood from a partial rupture. Since then, the supposed thunderclap headache has not been clearly described as either referring to the severity, the acuity of onset, or both. Onset of headache should always be documented; both the time and how it occurred. Patients with SAH are more likely to report a headache reaching a maximum intensity in less than one minute, while the patient’s definition may vary. Additional characteristics of SAH include an exertional component leading to headache, occipital or holocranial headache, and meningism. Up to 25% of patients who are diagnosed with SAH were previously misdiagnosed. In patients who have a sudden-onset, severe headache and negative CT imaging, the ACEP Clinical Policy recommends to perform a lumbar puncture to rule out subarachnoid hemorrhage. As CT technology improves, this requirement will surely be removed, however this is still an important discussion to have with your patients, including additional potential benefits, such as ruling out infection or elevated intracranial pressure. Current data suggests that a CT scan performed within 6 hours of onset can sufficiently rule out subarachnoid hemorrhage in comparison to the gold standard of CT with lumbar puncture.

Table 3: High Risk Factors for Subarachnoid Hemorrhage
## High Risk Factors for Subarachnoid Hemorrhage

### Clinical History

| Abrupt onset of headache, or reaching highest intensity within 60 seconds. |
| "Worst of Life" headache |
| Loss of consciousness |
| Diplopia |
| Seizure |
| Focal neurologic deficits |

### Epidemiologic Factors

| Tobacco smoking |
| Hypertension |
| Alcohol use or recent binge drinking |
| Personal or family history of SAH |
| Polycystic Kidney Disease |
| Inheritable connective-tissue diseases |
| Sickle cell anemia |

### Physical Findings

| Retinal hemorrhage |
| Nuchal rigidity |
| Any new neurologic findings |

General appearance is also important, yet difficult at times to document. Utilizing the built-in check boxes may provide the patient's GCS or level of consciousness, however it is just as important to portray how the patient appears. Are they well appearing and conversant? Or, are they in obvious distress, tearful, and unable to focus on the evaluation?

Associated symptoms may lead you toward the diagnosis. A patient presenting with headache is a mystery. A patient who presents with headache, nausea, neck pain, and appears unwell on examination is a much more telling story. Patients will frequently have multiple complaints, and it is important to document and attempt to address each of them. Take time to document the unusual or important aspects of the patient's headache. What about the headache made them concerned enough to come to the emergency room? Consider the intensity, location, onset, and associated symptoms including any syncope, exertional component, chiropractic manipulation or trauma, or neck or jaw pain.

Upon re-evaluation, a patient's response to therapy does not predict the etiology of an acute headache, and cannot be used as the sole indicator of the underlying etiology.⁵²
The patient presents with new onset headache. The headache onset occurred _ hours prior to arrival and reached peak intensity _ 60 seconds. The patient has _ know history of polycystic kidney disease, sickle cell disease, or Erlers-Danlos syndrome. The patient has _ meningismus, is _ stabbing in reported quality. The patient's examination shows _ neurologic deficits, with a reassuring physical examination. The patient is _ < 50 years old, without a new type of headache, does _ have any neurologic deficits, and _ does not have a sudden onset headache in severity or timing concerning for a sentinel headache of a ruptured aneurysm. The patient is _ at risk for a coagulopathic event; no current cancers, no estrogen use _ current pregnancy, _ history of Lupus, Factor 5 Leiden, or previous DVT/PE. There is _ history of trauma, and the patient is _ on anticoagulation. The patient is _afebrile, without neck stiffness, meningismus or photophobia. Temporal arteritis _ due to age _ < 60, no temporal tenderness on exam. Acute angle glaucoma unlikely given _ ocular symptoms and pupillary exam is benign. No _ additional history concerning for carbon monoxide poisoning. There has been _ recent lumbar puncture or epidural. Carotid artery dissection _ likely, _ cervical bruit on exam. Will treat headache and reassess. While symptom relief with treatment cannot be used as a sole indicator of a benign headache, provided HA resolves with treatment and no change in neurologic status, plan for d/c w/ neurology vs PCP f/u.

**SINUSITIS (.MDMSINUSITIS)**

Acute inflammation of the mucosa of the sinuses is diagnosed as rhinosinusitis when two of the following symptoms are present; blockage or congestion of the nose, facial pain, diminished ability to smell, and nasal discharge for 7-14 days. Inflammation leads to blockage of the sinuses at the ostia, leading to the typical pressure-like pain. Physical exam findings such as mucosal color or sensitivity
to palpation are not predictive of acute sinusitis. Sinusitis should be considered a rare cause of headaches; any severe headache which is being ascribed to sinusitis should be reconsidered\textsuperscript{58,59}. Although viral illness is the most common cause of sinusitis, many patients may present with the presumption that they will be prescribed antibiotics. The provider should consider dental caries, facial masses or tumors, and foreign bodies (especially in children) before making the diagnosis.

This macro duplicates the conversation I have with patients when I explain antibiotics will not help their illness. Prescribing decongestants as well as a nasal saline spray may lessen the frustration these patients may feel. It is also important to discuss that changes in their symptoms may signal a new or worsening infection, and that they should be re-evaluated. Symptoms lasting more than two weeks or significant symptoms should be considered for antibiotic therapy. A RCT involving 240 patients, published by \textit{JAMA} in 2007, found neither steroids or antibiotics were effective treatment for sinusitis\textsuperscript{60}. When antibiotics are prescribed, the use of fluoroquinolones provides no additional benefit in comparison to first-line treatments, while potentially increasing the risk of adverse events\textsuperscript{61}.

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Patient here with symptoms concerning for acute sinusitis. Patient's symptoms have lasted _ days, is _ currently on immunosuppressive medications, and symptoms are _ severe or worsening. On examination, there are _ signs of dental caries, _ foreign body, or facial lesions or masses. The patient has _ history of coagulopathy or signs concerning for a venous sinus thrombosis. There is _ facial swelling, ocular pain, or tenderness concerning for periorbital or orbital cellulitis. The patient is well appearing, tolerating PO, with a plan to follow up or return if symptoms worsen. Given that 98% of sinusitis is viral and resolve within 10-14 days, the risk of antibiotic therapy at this time would outweigh any benefit to the patient and
could contribute to antibiotic-resistant infections. Per the ACEP Choosing Wisely recommendations, I will treat symptomatically and instruct the patient to return if symptoms do worsen or are prolonged.

INFLUENZA (.MDMFLU)

<table>
<thead>
<tr>
<th>High-Risk Comorbid Conditions(^{62})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age &lt;2 years or &gt;65 years</td>
</tr>
<tr>
<td>Pregnant patients</td>
</tr>
<tr>
<td>Chronic lung disease (including asthma)</td>
</tr>
<tr>
<td>Heart disease</td>
</tr>
<tr>
<td>Renal disease</td>
</tr>
<tr>
<td>Metabolic or Neurologic disease</td>
</tr>
<tr>
<td>Immunosuppressed</td>
</tr>
<tr>
<td>Morbid obesity</td>
</tr>
</tbody>
</table>

Before the influenza pandemic of 2009, the rapid antigen test (RAT) for influenza was used in less than 5% of adult patients presenting with flu-like symptoms. Immediately after 2009, the use of RATs skyrocketed to 67% of adults with flu-like symptoms\(^{63}\). In comparison to the PCR serum testing, RAT results are widely variable in sensitivity and depends on the quality of sample obtained. While RATs have led to decreased utilization of antibiotics, they have prolonged ER length of stay and changed how a number of providers diagnose influenza. Although the diagnosis of influenza is clinical during period of high activity, in many US emergency departments the treatment for it is based almost solely on the result of a relatively poor test. In relatively healthy individuals who are tolerating fluids
with an obvious clinical diagnosis, further testing may offer little value\textsuperscript{64}.

Typical symptoms of the flu include acute-onset fever and nonproductive cough associated with malaise, myalgias, and sore throat. In the setting of the typical influenza season, patients presenting with these otherwise vague symptoms may be clinically diagnosed with influenza, foregoing the expense and time of formal testing\textsuperscript{62,64}. Clinical lab testing should only be considered early in the flu season, as well as when it will impact clinical management\textsuperscript{62}. Although some tests advertise results within 15 minutes, this doesn't include the time to obtain the sample, send the test, and retrieve the result. During high influenza activity, there is a significant number of false negative tests, while early in the season there is a possibility for false positives\textsuperscript{62}. Even with a negative rapid influenza test, the CDC still recommends treatment in those who are clinically diagnosed with the flu.

When a patient is otherwise well appearing and clinically diagnosed with the flu, it is important to consider alternative causes of their presentation. Consider the patient's risk for HIV as acute retroviral syndrome may present with a flu-like illness, with most cases going undiagnosed\textsuperscript{65}. Recent travel to areas with endemic dengue and other febrile illness including malaria and chikungunya should lead to further testing including a CBC and peripheral smear. Leukopenia and thrombocytopenia are two easily obtainable values and predictors of dengue\textsuperscript{66}. Specifically, patients with a flu-like illness and rash should also undergo further testing for other causes of their illness. Providers should also be wary of patients with a history of influenza a worsening in their condition, as this may be secondary to a bacterial pneumonia, the most common cause of death in patients with influenza.
The patient presents with symptoms of influenza including _ in the setting of known influenza burden in the community. The patient is tolerating oral fluids and appears well hydrated, is _ <65 years old, _not pregnant, has _ chronic lung diseases, renal, metabolic, or neurologic disorders, and is _ otherwise immunocompromised, with _ risk factors for acute retroviral syndrome. Per CDC recommendations, I will withhold testing for influenza. Given the patient is _ <2 days of symptom onset, I will initiate treatment and plan to discharge with supportive care and return precautions.
Bronchitis and upper respiratory infections have overlapping clinical presentations. In general, acute bronchitis is considered a reaction of the upper airway with inflammation and mucus production without evidence of pneumonia. Acute bronchitis is caused by influenza, parainfluenza, RSV, rhinovirus and other pathogens, although in general, viruses are rarely isolated symptomatic patients⁶⁷. Acute bronchitis typically occurs with a cough for 10-20 days, put can persist for up to 4 weeks. Purulent sputum can occur with bronchitis, and cannot be used as an indicator of a more serious infection⁶⁸. Evaluation for bronchitis should focus on ruling out pneumonia and asthma (small airway inflammation) as well as chronic airway issues such as bronchiectasis, COPD, and chronic bronchitis. Patients with a cough but without fever, elevated heart rate or breathing rate, and a normal examination without focal lung findings minimizes the potential for pneumonia. Outside of elderly patients, further diagnostic testing is typically unnecessary. Previous reviews of the literature identify the physical exam and history as the most important diagnostic tool, however more recent literature in the pediatric emergency room setting recommends obtaining chest radiography, even with a normal lung examination⁶⁹,⁷⁰. Your practice will vary depending on your population and risk aversion.

Patient presents with coughing history suggestive of acute bronchitis with >5 days of cough, without evidence of PNA or asthma. Sinusitis unlikely given history and PE. No reported history or evidence on exam of FB/obstruction. Unlikely pertussis given no known contacts and character of cough. The patient’s age is _<65, heart rate is _<100, _ RR<24, _afebrile, _no recent hospitalizations, _ not diabetic, and _no exam findings consistent with focal consolidation. They are a low risk for pneumonia and will plan to DC with PCP follow-up in 3 days with return precautions.
ACUTE BRONCHITIS, ALBUTEROL AND CHEST X-RAY (.MDMACUTEBRONCH_YES)

Patient presents with coughing history suggestive of acute bronchitis, with wheezing and PE suggestive of potential PNA. Will tx with albuterol/ipratropium nebs and obtain CXR. Sinusitis unlikely given history and PE. No reported history or evidence on exam of FB/obstruction. Unlike pertussis given no known contacts and character of cough. The patient’s age is _<65, heart rate is _<100, _ RR<24, _afebrile, _no recent hospitalizations, _ not diabetic, and _no exam findings consistent with focal consolidation. They are a low risk for PNA, and will plan to DC with PCP f/u in 3 days with return precautions.

CHRONIC BRONCHITIS, ALBUTEROL & CXR (.MDMCHRONICBRONCH)

Unlike acute bronchitis, which can have variable clinical presentations and causes, chronic bronchitis is more easily defined by clinical presentation. Chronic bronchitis is the presence of a cough for 3 months for at least the past 2 years. Typically, chronic bronchitis presents as an acute exacerbation of underlying chronic obstructive pulmonary disease with worsening sputum production and shortness of breath. Clinical guidelines recommend against antibiotics unless there is a significant change in symptoms, such as significant increase in sputum, fever, or other findings concerning for overlying infection.
Patient presents with coughing history of >3 months, with an underlying diagnosis of COPD. On examination, the patient has _ wheezing, but no focal consolidations, afebrile, _ tachycardia, and no history concerning for pneumonia. The patient's age is _<65, heart rate is _<100, _ RR<24, _afebrile, _no recent hospitalizations, _ not diabetic, and _no exam findings consistent with focal consolidation. Will treat with nebulized albuterol and initiation short term steroid treatment.

MINOR HEMOPTYSIS (.MDMHEMOPTYSIS)

Minor hemoptysis is defined as a small amount of blood that is coughed up without a history of comorbid lung disease and normal vital signs and examination. Major hemoptysis is more difficult to define with multiple volume definitions, although in general is defined as hemoptysis of more than 600 mL within 24 hours. Even a small amount of hemoptysis can cause respiratory compromise, so identifying potential sources is important. Important, potentially life-threatening bleeding can occur in patients with chronic pulmonary disease or infections, such as tuberculosis, COPD, or bronchiectasis. In these patients, fragile blood vessels are formed which are prone to rupture and destruction of underlying lung parenchyma, potentially invading arterial blood supply. Autoimmune diseases can also predispose patients to vascular injury and damage to pulmonary tissue. Patients at risk for major hemoptysis should undergo additional imaging depending on the specific clinical situation.

In patients with mild hemoptysis and no risk factors for more dangerous bleeding, hematemesis and epistaxis should be ruled out with history and examination, including potentially a guiac stool exam. Patients should be asked about drug use including cocaine or heroin insufflation, which can cause alveolar damage as well as
epistaxis. Patients with mild hemoptysis may benefit from a chest X-ray to evaluate for underlying pneumonia, masses, or alternative cause.  

Patient presents with reported hemoptysis. While most commonly idiopathic, patient's presentation appears most likely secondary to coughing in the setting of recent airway inflammation. Physical exam is reassuring, and the patient's vital signs are_.  

Possible increased stress from_ in setting of underlying chronic disease such as COPD or reactive airway disease with inflammation causing angiogenesis and fragile vessels prone to rupture.  

_No recent procedures (such as biopsy or bronchoscopy), recent penetrating or deceleration trauma or anticoagulation. _No reported cocaine or heroin inhalation concerning for drug induced diffuse alveolar hemorrhage. _Unlikely PE causing distal lung necrosis given PERC_. Unlikely pulmonary AV fistula or aorto-pulmonary fistulae given the episode reported is minimal, no history of chronic nosebleeds or GI bleeds, and no surgery or instrumentation of the airway. _No history of tracheostomy to invade the innominate artery. There is no history of SLE or Wegener's, and there are no arthralgia, malar rash, or saddle nose deformity to suggest this may be the case.  

Will discuss return precautions and likely cause with the patient and instruct for follow up with PCP within 3 days for re-evaluation, and return to ER if worsening hemoptysis, lightheadedness, near syncope, or other concerns.
NOSEBLEED, RESOLVED (.MDMNOSEBLEED)

Patient presents with now resolved _nare epistaxis likely anterior in nature. No other evidence of bleeding stigmata. No septal ulceration. Discussed symptomatic management and return precautions. Discussed benefits and alternatives in regard to silver nitrate cauterization and will defer at this time given patient has been asymptomatic for period of time.

THROAT PAIN (.MDMTHROAT)

Patient is here with sore throat with reassuring exam. No history of immunocompromise. Pt euvoletic with no trismus and no physical exam findings concerning for airway compromise. Able to tolerate PO. Unlikely PTA, RPA, Ludwigs, epiglottitis, acute HIV, or EBV. Centor _negative for strep. Nontoxic appearance.

Plan to DC home; return precautions discussed.

BACK PAIN WITHOUT RED FLAGS (.MDMBACKPAIN)

More than 6 million visits are reported in the US for back pain, with an annual cost of more than $90 Billion. A systematic approach should be used to determine which patients require further imaging,
and which patients can be safely discharged with follow-up, decreasing costs and preventing wasted resources. While the patient’s main concern may be analgesia, the first priority is to confirm their pain is not from a life-threatening condition. Cannot miss diagnoses include ectopic pregnancy, aortic aneurysm or dissection, and spinal cord compression or damage. These diagnoses are rare, scattered within the large number of patients with musculoskeletal or nerve pain from narrowed foramina, herniated discs, and sprained muscles.

Table 4: Risk-Stratifying Patients with Back Pain9,71

<table>
<thead>
<tr>
<th>High-Risk Back Pain Considerations</th>
<th>Low Risk Back Pain (No Imaging)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age &gt;70 or &lt;20</td>
<td>Infection, Cancer, Vascular disease</td>
</tr>
<tr>
<td>History of Cancer or weight loss</td>
<td>Metastatic disease</td>
</tr>
<tr>
<td>Immunocompromised, IVDU</td>
<td>Epidural abscess, osteomyelitis, discitis</td>
</tr>
<tr>
<td>Motor deficit on exam</td>
<td>Cord Compression</td>
</tr>
<tr>
<td>Urinary retention (90% sensitive), bowel incontinence, saddle anesthesia</td>
<td>Cauda Equina Syndrome</td>
</tr>
<tr>
<td>Female with positive pregnancy test</td>
<td>Ectopic Pregnancy</td>
</tr>
</tbody>
</table>

A Note on “Red Flag Screening”

“Screening” low back pain utilizing a specific list of either symptoms or risk factors has become relatively popular, with more than 8 different guidelines utilized by various organizations. There is a large amount of variability between guidelines, with at least 97 different items representing possible red flags72. Additionally, most guidelines do a poor job in ruling out malignancy or fractures. In fact, screening back pain patients is technically a misnomer that has caught on, as these patients are typically presenting with symptoms, while screening typically refers to identification before symptoms begin. Regardless, keep in mind that red flags are just that—something that should pique your interest—and not absolutes.
Cauda Equina is one of the most well-known back pain emergencies, and can present with midline back pain, lower extremity weakness, or other relatively vague symptoms. Urinary retention is 90% sensitive for Cauda Equina syndrome. This is due to the denervation of parasympathetic nerve fibers from the Cauda Equina, leading to unopposed sympathetic tone with detrusor muscle relaxation and sphincter closure. The S2-S4 neurons may also be involved, leading to numbness of the perineum and paralysis of the voluntary rectal sphincter. Herniated discs are the most common cause. Patients with any symptoms concerning for cauda equina should have a post-void residual by ultrasound or catheterization, rectal examination, and sensation tested in the saddle region. If concern continues, the patient should undergo an emergent MRI and neurosurgical consultation.

Epidural abscesses are most common in 60-70-year-old patients, and those with diabetes, alcoholism, immunosuppression, cancer, or IV drug abuse are at higher risk. Trauma and surgical patients are also at increased risk. Typically, patients will present with fevers, back pain, and general malaise. Not all patients will have focal tenderness or a leukocytosis. MRI or a CT myelogram are the preferred diagnostic imaging modalities.

Spinal cord injuries, although rare, are devastating to the patient. When there is a history of any trauma, have a high index of suspicion for potential injury, and be sure to document immobilization techniques and transfer techniques used. Document your complete neurologic examination on arrival.

An aortic aneurysm or dissection may present vaguely and require a high index of suspicion to diagnose. The diagnosis should be considered in patients 55 years or older with back pain, shock, or syncope of unknown cause. The classic triad of hypotension, abdominal or back pain, with a pulsatile abdominal mass will be present in less than 50% of patients. Those at higher-risk include tobacco use, hypertension, and sudden onset back pain. Patients who are anticoagulated should raise a high index of suspicion for the potential of an epidural hematoma, as well as anyone with a recent lumbar puncture or epidural anesthesia.

Your physical exam should include neurologic testing of the lower extremities, including sensation and proximal and distal strength. A
positive straight leg raise is 91% sensitive and a crossed-leg raise is 88% specific for herniated discs, and should be documented as well\textsuperscript{73}. Remember that the leg raise tests are only considered positive if the pain elicited radiates down the leg, not just worsening their pain in the back. Although 43% of patients with low back pain undergo some form of imaging, your history and physical exam can identify a large number of patients in whom imaging will provide no improvement in outcomes\textsuperscript{74}. In patients without High-Risk features, obtaining imaging will merely add to the length of stay and increase the patient's bill, while providing no additional information.

Patient presents with lower back pain without trauma, has no severe or progressive neurologic deficits, and does not have history or exam findings concerning for Cauda Equina, cancer with metastasis, or vertebral infection. Specifically, the patient has no known history of immunocompromised status or IV drug abuse, has no recent trauma, epidural injections or surgery, and the patient is afebrile. The patient is _ anticoagulated, and has _ had a recent lumbar puncture, and _ recent chiropractic manipulation. Bilateral straight and cross leg-raise test _. Sensation is _ intact in bilateral lower extremities. A post-void residual was _. Given the patient's history and evaluation, I will withhold further imaging per ACEP Choosing Wisely recommendation that routine imaging of the low back should be avoided to reduce radiation exposure.
MOTOR VEHICLE ACCIDENT (.MDMMVC)

Pt is an otherwise healthy individual, involved in restrained MVA with airbag deployment. Patient with pain predominantly to . Hemodynamically appropriate with nonfocal neurologic exam. Given exam and history, low suspicion for traumatic dissection or ICH.  without overt fracture or dislocation with low suspicion for ligamentous injury on re-examination. Abdominal exam without tenderness and _FAST unremarkable. Stable gait and tolerating PO. Return precautions and follow up with primary care physician discussed.

DEEP VEIN THROMBOSIS & PULMONARY EMBOLISM

DVT (.MDMDVT)

Evaluation for a deep vein thrombosis (DVT) must be considered a distinct and separate evaluation than for pulmonary embolism. A negative US of the lower extremities does not rule out a PE, and although most pulmonary emboli originate from the lower extremities, this is not always true. It is important to separate symptoms a pulmonary embolism from those of a DVT, a patient suffering from a DVT with symptoms of a PE should undergo evaluation or presumed treatment for a pulmonary embolism, depending on the clinical situation.

Identification of a DVT is important to initiate treatment and prevent possible transit, leading to pulmonary embolism. This risk has led many clinicians to order a large number of venous duplex ultrasounds without considering pretest probability, as a way to prevent missing a possible DVT. The overuse of imaging without
considering pretest likelihood may be adding to increased cost and resource utilization. The venous duplex ultrasound may increase the cost of care as well as length of stay. D Dimer testing has been found to be as diagnostically useful as a venous duplex ultrasound, however most clinicians typically proceed directly to venous duplex ultrasound. The Well's DVT Criteria (not to be confused with the Well's Pulmonary Embolism Criteria) can be used as a decision aid in evaluating patients for a possible deep vein thrombosis and provide a pathway towards imaging or D Dimer testing. The Well's DVT Criteria was initially developed in the 1990's and later refined and tested in a randomized control trial in 2003. Patients were scored on the Well's DVT Criteria, with a score of 2 or less being considered low risk. Patients were randomized to either a D Dimer test or ultrasound. Those who underwent D Dimer testing but had a Well's Criteria higher than 2 or a positive D Dimer underwent ultrasound as well. The study found that in patients with a low risk (Well's DVT Criteria <2) and a negative D Dimer, the diagnosis can be ruled out (False negative rate of 0.4%, 95% CI 0.05-1.5%). In more recent meta-analysis, a low Well's Score (less than 2) and a negative D Dimer provided an extremely low probability of DVT (1.2%, 95% CI 0.7-1.8%). The use of the Well's DVT Criteria and D Dimer testing has become the current standard for ruling out a DVT.

The Well's DVT Criteria include 10 physical exam findings or historical risk factors. One frequently over-looked portion is the evaluation of calf swelling. Patients should have their calf measured 10cm below the tibial tuberosity and documented. A diameter of 3cm greater compared to the other leg is concerning for a possible DVT. Most ERs have disposable paper tape measures which can be used to obtain these measurements.

In patients with a high Well's DVT Score, the D Dimer should be skipped, and imaging obtained. In the case of a negative ultrasound but high clinical suspicion, patients should have repeat DVT imaging within one week.
The patient presents with _. At 10 cm below the tibial head, their calves measure _ in diameter and less than 3cm difference. The patient's Well's DVT Criteria score is _ and their D Dimer is negative. Given this, the patient's risk for DVT is less than 2% and their symptoms are more likely secondary to _. Further testing would potentially be detrimental to this patient. I will instruct the patient on return precautions including worsening swelling or pain, shortness of breath or chest pain which may indicate a DVT or PE, and plan to _.

**PULMONARY EMBOLISM (MDMPERC)**

Separate from DVTs is the diagnosis of a potential pulmonary embolism. The PERC rule consists of eight objective factors to attempt and exclude patients from further testing for pulmonary embolism\(^8^0\). The rule was introduced to try and combat the increased use of CT imaging to rule out pulmonary embolism. In the early 2000's, up to 2% of patients presenting to the ER were undergoing CT pulmonary angiography (CTPA) with only 5% of studies identifying a pulmonary embolism\(^8^1\). The PERC rule is designed to first utilize the provider’s own gestalt; only patients deemed “low risk” for pulmonary embolism should have the PERC rule applied. This translates to a 15% or less pre-test probability. If all 8 criteria are met in a low-risk patient, they can be considered to have a 2% false-negative rate, or a 2% risk for pulmonary embolism\(^8^2\). Physician gestalt is an important part of the PERC rule, when the rule is applied alone, there is a significant increase in the false-negative rate, becoming as high at 8%\(^8^2\). More recently, the 2018 PROPER trial in France compared the PERC rule with physician gestalt to d-dimer/CTA, finding the PERC strategy continues to be a safe alternative which can prevent exposure to radiation as well as the
potential for false-positive diagnoses. Additionally, the use of PERC is considered a Best Practice by the American College of Physicians.

Given this patient has a low pretest probability of a pulmonary embolism and a negative PERC, per ACEP Choosing Wisely recommendations and American College of Physician Guidelines, I will not pursue CT evaluation for pulmonary embolism. The patient is hemodynamically stable, and symptoms likely from other etiology. The risk of further testing would potentially be detrimental to this patient.

ABDOMINAL PAIN, GENERAL (.MDMABD_GEN)

Patient here with abdominal pain _. Pt nontoxic in appearance, vital signs WNL, and tolerating PO. Pt's presentation unlikely aortic in etiology as inconsistent with location or history, _nonsmoker and _no HTN. Cholecystitis inconsistent with history; not related to meals, negative murphy's, and no hx gall stones previously. SBO unlikely given no prior abd surgery and normal BMs. The location of pain is _ not typical of appendicitis, the patient has _ rebound tenderness, _ anorexia, _ nausea/vomiting. _No history of renal stones, no CVA tenderness, and _no hematuria. _No adnexal or groin tenderness concerning for torsion. Labs, including hepatic panel, urine, and _hcg.
Appendicitis is just one cause of acute onset abdominal pain, with a significant morbidity and mortality, leading to 293,000 hospitalizations in US in 2010, and 72,000 world-wide deaths\(^8^5\). The diagnosis can be difficult, especially without CT imaging. The Alvarado score was developed to risk stratify patients based on signs, symptoms, and lab results, in an age when CT imaging was less prevalent and with potentially higher doses of radiation\(^8^6\). The score uses three signs, three symptoms, and two lab values to categorize patients into three risk categories. The score was validated in 1995 with a sensitivity and specificity of 64% and 84% for the diagnosis of appendicitis\(^8^7\). Patients with a low Alvarado score (<3) typically do not require further workup (sensitivity 96.2%) while those with a high Alvarado score (>7) should receive a surgical consult prior to a CT scan, as they are highly likely to have appendicitis and may not benefit from CT imaging. While the Alvarado Score is useful to risk stratify patients, keep in mind that appendicitis is one of the most common diagnosis involved in litigation\(^7\). In this case, the Alvarado Score should be used as a tool, but never over your own clinical gestalt. When reasonable, the score can be used in conjunction with a shared decision-making conversation with the patient to determine what their level of comfort is in either withholding or undergoing CT imaging.
The patient is here with new onset abdominal pain. The patient has _ RLQ abd pain, the pain has _ migrated to the RLQ, is _afebrile, _ rebound tenderness, _ anorexia, _ nausea or vomiting, and _ WBC <10,000 _ without a left shift. Given an Alvarado score of <3, the patient's symptoms are less likely to be due to an acute appendicitis. I discussed with the patient the risks and benefits of withholding further testing to evaluate for acute appendicitis, including the risk of an undiagnosed appendicitis, potential for deterioration or perforation, versus the risk of radiation with additional testing. A shared decision was made to withhold further imaging at this time and _. I discussed return precautions at bedside including signs of potential appendicitis.

STONE NO IMAGING (.MDMKIDNEYSTONE)

Patient presents with flank pain consistent with a prior kidney stone and is otherwise well-appearing with low suspicion for dissection, sepsis, or obstruction. Given this is similar to the patient's prior kidney stones, no signs of infection on UA, and the patient is nontoxic in appearance, I discussed conservative management without imaging vs. imaging today to potentially rule out hydronephrosis or a stone too large to pass, as well as identifying an alternative cause for their pain, including the _ potential for vascular etiology such as aortic dissection. The patient elected to _ discharge home with pain control, strict return precautions, and f/u with PCP vs urology.
MINOR HEAD INJURY (.MDMTBI)

Patient here after sustaining a minor head injury. Utilizing the Canadian CT Head Rule, I will withhold further imaging of the head per ACEP Choosing Wisely recommendations. Discussed with the patient the possibility of a traumatic brain injury, warning signs to identify for return, and further treatment plan including resting in a dark room, decreased use of screens, decreased work load, and step-wise progression back to normal activities.

ACETAMINOPHEN INGESTION (.MDMTOX_TYLENOL)

Patient here after potential Acetaminophen ingestion. Time since ingestion ___. GI decontamination ___. 4 hour Acetaminophen level ___. If elevated level, will monitor level and hepatic function q12h, start NAC, and admit for further treatment. NAC Loading Dose: 150 mg/kg in 200 mL of 5% dextrose, infuse intravenously over 60 minutes.

Poison Control ___.
Initial Acetaminophen level ___.
Initial hepatic enzymes: ___.
Concomitant ingestion ___.

Stroke risk after transient ischemic attack.

A. Age > 60 years = +1
B. Blood pressure > 140/90 mmHg: +1 for hypertension at presentation
C. Clinical features including unilateral weakness (+2), speech disturbance without weakness (+1)
D. Duration of TIA between 10-59 minutes (+1), >60 minutes (+2).
D. Diabetes (+1).

Stroke risk at 2, 7 and 90 days
0-3: low risk
4-5: moderate risk
6-7: high risk
CHAPTER 8

Re-evaluation Notes

Reevaluation notes should assist you in off-loading text-heavy portions of your note for frequently documented updates and patient care discussions. By documenting your re-evaluation of the patient, you are providing snapshots in time during the patient’s visit, as well as the response to interventions you are providing. Most EHRs allow for automatic timestamps and recent vitals to be incorporated into your macro text, which can provide a more complete picture of the patient. This becomes important when a patient is to be discharged after either a prolonged stay in the ED, after being intoxicated and metabolizing to sobriety, or reassessing an unstable patient.

Patient discussions, especially prior to discharge, should also be well documented. From a medicolegal standpoint, discussions such as incidental findings and follow up needs, goals of care discussions, and other family or patient discussions which may impact care should all be documented.

COMPLETE RE-EVALUATION (.RREEVAL)

A complete re-evaluation should be done on any patient presenting with a high-risk complaints such as abdominal pain, a patient with abnormal vitals, or anytime there is a handover such as sign-out from an off going provider. This allows you to fully reevaluate the patient’s chief complaint, initial vital signs, physical exam, interventions as well as response to interventions. This gives you one
more chance to address any abnormal vital signs or chief complaints in the triage note which may not have been acknowledged in the patient’s history. While this may be burdensome to fill out, consider doing this for specific patient populations, such as female patients with abdominal pain, or patients whom you have received sign-out on.

The patient presented with a chief complaint of _, and initial vital signs _. Physical exam showed _, and the patient was treated with _. On re-evaluation, the patient _. At this time, plan for _.

DISCUSSED WITH PATIENT (.RDISCUSSED)

Discussed today’s treatment, studies, needed follow up, and return precautions with patient. Patient understood and is comfortable with treatment plan.
TRANSLATOR OFFERED (.RTRANS_NO)

I offered the patient a hospital provided translator, however the patient declined.

TRANSLATOR UTILIZED (.RTRANS_USED)

A phone-based translator in the patient’s preferred language was used to obtain the patient’s history and assist with the physical examination.

TRANSLATOR FAMILY (.RTRANS_FAMILY)

I offered the patient a hospital provided translator, however the patient declined. An adult family member who was present offered to translate and the patient agreed. The family member translated to obtain the patient’s history and assist with the physical examination.
INTOXICATED PATIENT (.RINTOX)

Patient appears clinically to be intoxicated by _. On primary evaluation, no signs of trauma or assault. Will continue to monitor. POC glc _.

INTOXICATED DISCHARGE (.RINTOXDC)

Patient alert, oriented, denies any trauma or c/o at this time. Road and PO test passed, will d/c –EK

RE-EVALUATION (.RREEVAL)

On re-evaluation, the patient remains stable and symptoms have _. 
Discussed results and plan including._.

I have reviewed the patient’s prior chart including recent labs, ER visits, and available inpatient discharge summaries if available.

I spoke with the patient’s family, including _, decision maker, I provided an update on the patient’s current status, including _ and the concern that the patient may require further invasive interventions due to their current medical status, and that, despite these efforts there is the potential that they may not survive. In discussion with the patient's decision maker, it was determined that the patient would not want these interventions, including compressions during cardiac arrest, ventilator support, or painful or invasive
procedures. I alerted the bedside RN of the change in status and will plan to continue all other therapies and move towards admission for further management.

AGAINST MEDICAL ADVICE

The number of patients leaving against medical advice (AMA) has increased over the years, from approximately 0.1% of patients in 1992, to about 2% of ED patients today\[88\]. Medically, patients who leave AMA have increased risk for adverse outcomes and twice the readmission and 30-day mortality rates\[89,90\]. In a retrospective review of patients who left AMA from an academic tertiary care hospital, decision-making capacity was only documented in 37% of cases and follow-up plans were only present in 31% of charts, despite 74.6% of cases having warning of impending AMA\[90\]. In general, providers do a poor job of documenting the patient's mental status or decision-making capacity prior to AMA, and rarely provide follow-up information or prescriptions, even though we are frequently aware that the patient is planning on leaving. This may be due to misconceptions by the provider, and it is important to understand that providers should still provide discharge instructions including return precautions and any prescriptions that are appropriate\[11,90,91\]. Low-risk medications, such as albuterol for a wheezing asthmatic, is one such case where providing a prescription will obviously provide some protection and treatment to the patient despite their desire to leave.

There are several key aspects to documenting when a patient leaves AMA. A history and physical should be completed as well as possible, using quotations whenever possible to describe the patient's symptoms. The patient's mental status, including lack of
signs of intoxication, should be included, even when not present (i.e. recording of negative findings), as well as the lack of any signs of internal stimuli. The examination or medical decision-making section should include a clear evaluation of the patient’s mental competency.

When discussing leaving against medical advice, you should enroll in nurse to observe the entire conversation and request that they document the conversation in their charting.

When possible, the patient should sign an AMA form, however the most important aspect is the documentation of your conversation with the patient. If the conversation is witnessed, record the names of nursing staff who were present. If a patient elopes, ensure you document actions taken to attempt to find the patient, including announcing overhead, having security check the bathrooms or lobby, and calling the patient’s phone number if accessible.

Your medical decision-making section should include key data surround the AMA request and discussion:

• Capacity: Is the patient able to demonstrate reason, carry on a conversation, and show intact insight and judgement? Are they free from intoxication and clinically sober?

• Signs and Symptoms: Document what symptoms are reported and what findings you can determine. Include what potential illness you may be concerned for, and that the patient is aware of this potential for illness

• Current Treatment Plan: Include the plan of care you would pursue if the patient remained

• Risks: Include the potential risks of leaving, not just the potential for death. Include realistic concerns and symptoms of a worsening disease process.

• Alternatives: document any alternatives to the plan of care, as well as additional treatment options offered to the patient.

• Family and friends: document any family and friends at bedside or who are contacted by phone to attempt to assist the patient in admission, such as friends or family to help with childcare.

• Discharge: Document the discharge discussion, follow up recommendations, and any additional information provided.
The patient has requested to leave the ED against medical advice. The patient reason(s) for leaving include but are not limited to_.

I believe this patient is competent to refuse medical care. The patient is responding and asking questions appropriately. The patient is oriented to person, place and time. The patient demonstrates a normal mental capacity to make decisions regarding their healthcare. The patient is clinically sober and does not appear to be under the influence of any illicit drugs at the time of my evaluation. They do not appear delusional, suicidal, homicidal or experiencing hallucinating on my examination.

I have explained to the patient that while their workup to this point is_, they may still be at risk for_, and I would like to continue with_.

The patient has been advised of the risks, in layman terms, of leaving AMA which include, but are not limited to death, permanent disability, loss of current lifestyle, delay in diagnosis, and_.

Alternatives have been offered including_, but the patient remains steadfast in their wish to leave.

The patient has been advised that, should they change their mind they are welcome to return to this hospital, or any other, at any time or follow up with their primary care physician.

I attempted to explain that in no way does an AMA discharge mean that I do not want them to have the best medical care available. To this end, I will attempt to provide the appropriate prescriptions, referrals, and discharge instructions if the patient will remain long enough to provide these. I have provided opportunity for questions and answered all questions to the best of my ability.

The patient did_sign AMA paperwork.
ACCEPTING & SIGNING OUT PATIENT

The transfer of care at change of shift can lead to a large number of misunderstandings, failure in information transfer, and potential compromise in patient safety. Because of this, the Joint Commission made Hand-off communication a major part of their national safety goals. There are many organizations who have created protocols for patient hand-off, including SaferSignout.com which created a signout toolkit that provides a systematic protocol including a paper form to improve the information exchange during transfer of care. These tools are useful adjuncts, however rarely do they become part of the patient’s chart. A re-evaluation note should be made by both the old and new provider which identifies the time of transfer, a brief synopsis of the relevant history and key issues, as well as what is currently pending, and any potential disposition planning which has already been made. The on-coming physician should then make note of any changes or additions found on their own examination of the patient. This addition to the chart provides a short summary of the treatment plan and can prevent failure of information transfer.

ACCEPTING PATIENT (.RPTACCEPT)

I accepted the patient at time of sign-out from off going provider, the patient presents with chief complaint of _, evaluation thus far reveals _. On my examination, _.
SIGNING OUT PATIENT (.RPTTRAN)

I have signed the patient over to oncoming provider at sign-out; the patient presents with chief complaint of _, evaluation thus far reveals _, plan to _.

BOARDING PATIENT

Patient currently admitted to inpatient team, who has evaluated and admitted the patient. Currently boarding in ER. Will defer further treatment to the primary team.

PSYCHIATRIC HOLDS AND DOCUMENTATION

Mental health disorders are common in the United States, and visits to emergency departments are increasing. Currently, one in eight visits involve mental health or substance use disorders. The largest increase in visits involve depression and anxiety as well as psychosis or bipolar disorder; both groups have increased by approximately 50-60% in the past decade\textsuperscript{92}. Patients presenting with psychiatric disorders have significantly increased lengths of stay and more likely to result in an admission or transfer\textsuperscript{93,94}. Of all individuals who attempt or commit suicide, 36-39% were seen in an emergency
department within 1 year before their attempt, giving emergency providers a unique opportunity to evaluate and potentially prevent a suicide attempt. Despite the creations of standardized screening questionnaires, most emergency providers fail to document many of the known risk factors for suicide. Asking and documenting the patient's response can help identify patients who may require immediate psychiatric evaluation as well as those who may be more amenable to outpatient follow-up. Although some providers recommend the use of scales such as the Columbia-Suicide Severity Rating Scale, these are typically lengthy and should only be used by trained personnel.

**PSYCH HOLD, SERIOUS (.RPSYCHHOLD SERIOUS)**

After initial evaluation, I am concerned that without care or treatment this patient may cause serious bodily harm to oneself or others in the near future, as evidenced by _. Will hold in ED and consult psych for further evaluation. Nursing staff made aware of status.

- **Risk Assessment:**
  - Psychosis, Anxiety disorder, mood disorder, substance use
  - Support (family/social), stressors, abuse or bullying
  - Plan, intent, practice, available means, past attempts, family history, future oriented
PSYCH CONSULT FOR OUTPATIENT RESOURCES (.RPSYCHHOLD_HOME)

After initial evaluation, the patient endorses _ depressive symptoms. The patient has _ prior suicide attempts, currently _ abusing medications or drugs, and _ family history of suicide. The patient has _ judgement as evidenced by _, and displays _ insight into their symptoms. Although the patient is not currently endorsing suicidal or homicidal ideation and appears to have a good plan for follow up, I will consult psychiatry to provide outpatient resources and ensure a safe discharge plan prior to disposition.

Risk Assessment:
- Psychosis, Anxiety disorder, mood disorder, substance use
- Support (family/social), stressors, abuse or bullying
- Plan, intent, practice, available means, past attempts, family history, future oriented

RERAINTS (.RRESTRAINTS)

After initial evaluation, I determined the patient required _ restraints due to interference with medical care including _. This was only after attempted verbal de-escalation. I was present and evaluated the patient prior to restraint initiation. Will continue to monitor patient and attempt to de-escalate restraints as possible and per protocol.
Physical Examination

The physical exam should typically be customized closely to the patient’s presentation. It is very easy to miss an exam finding or document contradicting exam findings using macros. For that reason, I rarely use a totally completed physical exam macro, and instead utilize blanks to fill-in each exam. This ensures I do not forget to document my entire exam, and saves time when documenting a complete knee or hand exam, which I do quite frequently, but may not always completely document.

**TRAUMATIC HAND EVALUATION (.PEHAND)**

<table>
<thead>
<tr>
<th>Complications from Closed Fist Injuries (^\text{15})</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Osteomyelitis</td>
<td>16%</td>
</tr>
<tr>
<td>Septic Arthritis</td>
<td>15%</td>
</tr>
<tr>
<td>Tenosynovitis</td>
<td>22%</td>
</tr>
</tbody>
</table>

**Physical Exam of a traumatic hand injury:** Once the patient’s hand has been cleaned and appropriately anesthetized (after a neurologic exam of the area to be anaesthetized), the wound should be evaluated through the entire range of motion to evaluate all the underlying structures which may have been flexed or extended at the time of the injury. Each tendon should be tested throughout its range and compared to the unaffected hand. Pain with flexion or extension of a tendon should indicate the need for a more thorough
examination for possible partial tendon laceration. Those with a delayed presentation or at risk for infection should be evaluated for signs of septic arthritis and flexor tendonitis.

Any injury of the dorsal hand, especially overlying the knuckles should be considered a closed-fist injury (CFI) unless proven otherwise, as there is significant increase in morbidity in comparison to other causes of hand lacerations. Most CFI patients are young males, aged 12-34 years, and may have a delayed presentation secondary to infection or worsening swelling. Patients with delayed presentation are at higher risk for infection, including septic arthritis. Their evaluation should include inflammatory markers which, while not specific, are sensitive for a joint infection. Your physical examination and documentation are important to prevent missing an injury and due to the potential legal ramifications of your chart. If the patient’s injury is discovered to be secondary to domestic violence or an illicit act, the chart may be utilized to provide evidence. A thorough examination and documentation of all skin, soft tissue, and bony findings are important, as well as documenting the lack of any of the above.

Diagnosis of tenosynovitis classically involves evaluation for Kanavel's Cardinal Signs of tenosynovitis. These were first published in the early 1900’s and included only three signs, with fusiform swelling being added later. Kanavel's signs have not been validated, despite their frequent use in the diagnosis. The most frequently identified of the four signs is fusiform swelling, while many patients may only have tenderness along the tendon sheath as the infection progresses.

<table>
<thead>
<tr>
<th>Kanavel's Cardinal Signs of Tenosynovitis</th>
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<tbody>
<tr>
<td>Pain with passive extension</td>
</tr>
<tr>
<td>Finger held in flexion</td>
</tr>
<tr>
<td>Fusiform swelling of the entire digit</td>
</tr>
<tr>
<td>Percussion tenderness along the tendon sheath</td>
</tr>
</tbody>
</table>
Inspection of _ hand shows _ lacerations, _ discoloration, and _ swelling or deformity. Palpation reveals _tenderness.

The median nerve was tested at the IP joint for Flexor Pollicus Longus, and at the second DIP joint for Flexor Digitorum Profundus. The Thenar muscles were tested for resistance to dorsal and palmar thumb movements, and the Abductor Pollicus Brevis was palpated during contraction. The Ulnar nerve was tested at the interosseous muscles with resistance to adduction of the phalanges. Froment's Sign was tested at the radial aspect of the second digit and the thumb and _normal. The Radial nerve was tested with individual phalange extension.

DIP and MIP flexion was tested in isolation with each digit. During testing of the flexor and extensor tendons, _ pain was elicited along the tendon pathways.

**OCULAR EXAMINATION (.PEEYES)**

Eye injuries and emergencies are usually not life threatening, however some illness can cause loss of vision. An ocular evaluation should be systematic, including the general appearance, evaluation for foreign bodies and trauma, anterior eye examination, visual acuity and intraocular pressures unless contraindicated.

A globe rupture will typically occur along the limbus, the insertion of the extraocular muscles, or at the optic nerve. Patients are at high risk with projectile and blunt head trauma. Keep a high index of suspicion for foreign bodies when patients report acute eye pain when grinding metal, striking a hammer, or other activities with the potential for small projectiles. Any protruding foreign body should be left in place, and any signs of globe rupture should result in no further manipulation of the eye. When a patient presents with a recent history of trauma and worsening eye pain, post-traumatic
endophthalmitis must be considered. Risk factors include delayed repair of a globe rupture, intraocular foreign body, lens rupture, or vitreous prolapse. On physical examination, the patient may have conjunctival injection, hypopyon or cell and flare, and lid or surrounding edema. Patients may report mild photophobia or pain out of proportion to exam. Anytime there is ocular pain and hypopyon present, an infection must be considered. Other considerations include traumatic iritis, corneal abrasion, and retinal detachment.

The bilateral eyes were examined. There was _ periorbital swelling or ecchymosis, _ proptosis, and _ pain with EOM. The eyelids were _ lacerations or ecchymosis. The sclera were white with_ chemosis or injection. Pupils were equal and reactive bilaterally, and EOMI. _ signs of chemical exposure or foreign body was identified, and there was _ peaked or teardrop pupil, enophthalmos, or obvious foreign body concerning for a potential globe rupture. The eyelids were everted with_ sign of foreign body. Anterior eye examination showed _ hyphemia _hypopyon, _ cell and flare. Woods lamp examination with fluorescein dye revealed _ corneal abnormalities, and _ Seidel test bilaterally. Visual acuity _.

PELVIC EXAMINATION WITH CHAPERONE (.PEPELVIC)

A pelvic examination was performed with female chaperone, _. The external
genitalia were normal in appearance without rashes or lesions. The vaginal canal had _ blood or discharge, and the cervix was _ nonfriable and _ closed. On bimanual examination there was _ no masses or cervical tenderness.

PRESSURE ULCER IDENTIFIED

I frequently forget which ulcer is a specific stage. By having quickly accessible macros I can find the best match based on my exam without having to google images of sacral decubitus ulcers everyday.

(.peulcer_0)

With nursing assistance, the patient’s sacrum and buttocks were examined. A suspected deep tissue injury with maroon, intact skin was identified on the _.
With nursing assistance, the patient’s sacrum and buttocks were examined. A stage 1 pressure ulcer of the _ was identified with intact but nonblanching and darkly pigmented skin.

With nursing assistance, the patient’s sacrum and buttocks were examined. A stage 2 pressure ulcer was identified with a shallow crater, partial thickness wound on the _.

With nursing assistance, the patient’s sacrum and buttocks were examined. A stage 3 pressure ulcer of the _ was identified with full-thickness wound
with tissue loss, without obvious tunneling or exposed muscle or bone on the.

(\textit{peulcer\_4})

With nursing assistance, the patient’s sacrum and buttocks were examined. A stage 4 pressure ulcer of the _ was identified with full thickness skin loss and _exposed underlying bone or muscle.

(\textit{peulcer\_5})

With nursing assistance, the patient’s sacrum and buttocks were examined. An unstageable pressure ulcer of the _ was identified with tissue loss and slough.
Discharge Instructions

Discharge instructions hold the highest medicolegal risk of any other part of your chart. Half of all ER litigation involves discharge instructions or follow-up information. Discharge instructions are commonly printed from standardized forms and as such may be vague and unclear, without specific, actionable information. In addition to physical or electronic documents, you should consider either documenting your conversation with the patient prior to discharge, or providing a short, printed synopsis of the patient's care, findings, and plan of care on discharge. These should be tailored to the patient's specific needs and treatment to prevent confusion and show that the patient was given specific, actionable instructions. Well written discharge instructions should confer some responsibility onto the patient, but it is the provider's responsibility to ensure the instructions are accurate, complete, and understood. If your discharge instructions are poorly worded, confusing, or lack appropriate information, it may be considered a failure to warn or negligent.

In your organization the responsibility for providing discharge instructions and ensuring patient understanding may be shared between the physicians and nursing staff. Without specific guidelines or defined roles it is easy for communication to breakdown. Surveys of attendings, residents, and nursing staff show that despite an understanding that discharge instructions are a shared responsibility the roles of everyone are rarely discussed, and there is typically no standardized protocol. Regardless of who provides the physical
discharge paperwork and removes an IV, as the patient’s provider, it is important for you to make sure the patient is given accurate information that they understand.

PROVIDING AN INFORMED DISCHARGE

It can be difficult to assess if our patients are able to comprehend the discharge instructions we provide. Anecdotally, discharge instructions are frequently written either too vaguely or too complex for many patients to understand. Health literacy is a major concern and can be a major barrier to ensuring follow-up for your patients. The same concerns are frequently applied when we consent someone for a procedure; does the patient truly understand the risks, benefits, and alternatives of a procedure? We spend a significant amount of time refining our informed consent dialogue, and we should spend the same amount of time making sure we provide an informed discharge.

Even in patients who are literate and intelligent, 40-80% of medical information communicated by practitioners is forgotten by the time they are home\(^9\). This is not because the patient is unable to understand, but because the patient may have no frame of reference for the information. Providing medical information requires context and background. Provide practical information with examples which the patient can identify with. For example, when consenting for a central line, I first reference an IV line, a device most patients are familiar with to provide a frame of reference as to how the central line is different from the IV line. In the same way you should provide a frame of reference for a patient’s discharge. They might understand why they take their albuterol inhaler but the connection between an oral steroid and their asthma may not make as much sense. Providing an informed discharge plan can prevent poor compliance, increased downstream utilization, and worse outcomes\(^1\).

When providing discharge information consider the discussion similar to obtaining informed consent, where the procedure is being discharged. The discharge process can be difficult for a patient; you have directed their treatment throughout the visit, yet now they are being given the responsibility for all their care. Does the patient
understand the diagnosis and results? Do they know the risks of going home, and when to return? Where they provided any alternative treatment options? Do they know why and when they need to follow up?

**UTILIZING THE TEACH-BACK METHOD**

Previous studies have found that merely asking patients if they understand discharge instructions is inadequate\(^{100}\). Patients may not recognize that their understanding is lacking at time of discharge\(^{13}\). The teach-back method is a way to make sure you are explaining information clearly, and that the patient understands the information being presented\(^{13,100,101}\). The goal is not to quiz patients or put them “on the spot”, but to initiate an open and friendly discussion to ensure the patient is comfortable with and understands their discharge instructions. The teach-back method can help prevent confusion, improve communication, and improve patient outcomes\(^{99}\). This has been shown to improve patient satisfaction, and can potentially avoid a negative patient experience, while only taking an additional 1-2 minutes in comparison to traditional approaches\(^{102}\).

The teach-back method starts simply; you should begin by using plain language to explain what has happened during their visit including their results and diagnosis. Explain you’d like to confirm how well you explained what has happened, and that you are not testing their knowledge. It may help to sit down next to the patient and speak slowly while making eye contact. Instead of using questions with yes/no answers ask open ended questions to make sure the patient understands and is not just hiding behind simple answers. After checking their comprehension, correct any mistakes and have them teach-back again. This can be done multiple times for each important part of the discharge instructions. The goal is to improve recall and understanding of short sequences of information, so breaking discharge instructions into different sections may be useful, such as test results, diagnosis, follow-up, and return precautions.

If a patient makes a mistake be sure to identify your explanation as the fault, not the patient’s ability to understand. Explain again using
different language or a drawing. If needed, you can demonstrate or provide additional educational resources. Once complete, make sure you allow the patient to ask questions or voice concerns.

Elements of the Teach-back Method

<table>
<thead>
<tr>
<th>Use a caring tone of voice</th>
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</thead>
<tbody>
<tr>
<td>Make eye contact</td>
</tr>
<tr>
<td>Use plain language</td>
</tr>
<tr>
<td>Use open-ended questions</td>
</tr>
<tr>
<td>Avoid yes/no questioning</td>
</tr>
<tr>
<td>If the patient is unable to teach-back, explain again</td>
</tr>
<tr>
<td>Document the patient's responses</td>
</tr>
</tbody>
</table>

**WRITTEN INSTRUCTIONS**

There must be a balance between specific, granular instructions for each individual patient and a generic check-the-box summation. Every discharge instruction should include certain specifics; follow up needs including a diagnosis, findings from their visit, the date or range of time for follow up, and where or whom to follow up with.

The specified follow-up time period is important! If a patient fails to follow-up urgently and you did not provide a specific timeline, you may be held liable. Previous court cases have specifically identified the follow-up time in their rulings. As discussed in the earlier section on defensible charting, cases have been dismissed when patients do not follow discharge instructions, but physicians are liable if the instructions are not clear.8,10,20

Reasons for the patient to return to the ER should be written in easily-understood language without jargon. Asking a patient to return for “redness, swelling, warmth, drainage, worsening pain, or fever” is better than “if signs of infection”. These should address specific situations, not just generalized symptoms. Remember that most discharge instructions, even free-texted instructions, are usually written at too high of a reading grade level, so try to use the easiest to understand language as possible.99

Incidental findings should also be including in your discharge
instructions and patients should be given a copy of imaging when possible.

PATIENT FEEDBACK

Despite our best efforts, we may still not be providing the best information for our patients. Something that might be obvious to us may be confusing to your patients. Asking for feedback from your patients at the time of discharge can help you further customize future written instructions and cater how you provide an informed discharge. Simply asking how you could improve their discharge or understanding can lead to small, relatively simple ways in which you can slowly improve your process and become more efficient and effective.
ANAPHYLACTIC REACTION (DCANAPHYLAXIS)

You were seen today and diagnosed with anaphylaxis, a severe allergic reaction. Because your reaction was severe, you were treated with medications to stop the reaction. There is a small chance of a recurrence of your symptoms within the next 72 hours. You should call 911 and return to the ER immediately if you have any recurrence or worsening skin rash, shortness of breath, swelling of the lips, face, or tongue, throat irritation, or trouble speaking or breathing. You should fill your prescription for an epinephrine injector and keep it with you at all times. Please follow up with an allergist to further discuss your future treatment options. Thank you for trusting us with your care.
ABDOMINAL PAIN, FILL IN CAUSE DEFINITE (.DCABDFILL)

You were seen today for abdominal pain. You were __. Your labs, imaging and evaluation __. You should return to the ER if you experience fever greater than 102 degrees, worsening abdominal pain, blood in your stools, worsening nausea or vomiting, or any other concerning symptoms. You should follow up with your primary care doctor __.
Thank you for trusting us with your care.

ABDOMINAL PAIN, FILL IN CAUSE, UNSURE (.DCABDFILLUNSURE)

You were seen today for abdominal pain. At this time, we believe your pain is due to __. Your labs, imaging and evaluation __. You require reevaluation, as your diagnosis is not definite. Any changes in your symptoms or new symptoms require immediate return to the emergency department. If you experience fever greater than 102 degrees, worsening abdominal pain, blood in your stools, worsening nausea or vomiting, passing out or nearly passing out, or any other concerning symptoms, you should immediately return to an emergency department. You should follow up with your primary care doctor __.
Thank you for trusting us with your care.
**ABDOMINAL PAIN, UNKNOWN CAUSE (.DCABDUNK)**

Today, you were seen in the ER for abdominal pain. Your bloodwork and imaging did not show a specific explanation for your symptoms. The exact cause for your pain is unclear, but your pain does not seem to be due to a serious cause at this time. However, things can change, and you should see your doctor or return to the ER if you have:
- vomiting that prevents you from keeping down fluids
- worsening of your pain
- fever of 100.4 or higher
- any other new or concerning symptoms

Otherwise, please see your primary doctor in 2 days for re-evaluation.

Thank you for trusting us with your care.

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**ASTHMA (.DCASTHMA)**

You were seen today for an asthma exacerbation. After treatment with oxygen and medications, your breathing improved. You should continue to use your albuterol inhaler as instructed, and prescribed medications as directed. It is important to use your Albuterol inhaler appropriately. If you
experience a worsening of your breathing, shortness of breath, swelling of your throat, trouble breathing, chest pain, or other concerning symptoms, you should return to the ER. During Heat Advisories or when air quality is poor, it is important to be more aware of your asthma symptoms and use your asthma medications as needed. You should also keep track of possible triggers for your asthma to help prevent future attacks. Please follow up with your primary care doctor in the next 3-5 days to evaluate your current asthma medications and any need for changes. Thank you for trusting us with your care.

BACK PAIN (.DCBACKPAIN)

You were seen in the ER for back pain. Your physical exam and evaluation was reassuring, and although an exact cause of your back pain was not found today, it does not appear to be an emergency. Please follow up with your primary care doctor in the next 2-4 days. Please return to ER if you have worsening pain in your back, numbness, weakness or pain in your legs, you lose control of your bladder or bowel function, or other concerns. Thank you for trusting us with your care.
BELL’S PALSY (.DCBELLS)

You were seen today for an episode of facial numbness and weakness. You were diagnosed with Bell's Palsy and placed on _, which you should continue as prescribed. Your evaluation was reassuring, however, changes in your symptoms may represent an emergency. Be sure to use an eyepatch to keep your effected eye closed when sleeping to prevent drying out and possible ulcer of the eye. During the day use saline drops or artificial tears to keep your eye moist. You should return to the ER if you experience eye pain, changes in vision such as blurred or decreased vision, swelling, fevers, a facial rash, or any other concerning symptoms. You should follow up with your primary care doctor within 5 days to further evaluate your need for additional diagnostic studies or treatment. Thank you for trusting us with your care.

COLD/VIRAL ILLNESS (.DCVIRAL)

You were seen today for _. Your symptoms appear to be due to a viral illness, and your evaluation was reassuring. Viral illnesses are treated with supportive care, including increasing your fluid intake, over the counter fever and pain reducers, and rest. To limit the spread of your symptoms to others you should wash your hands frequently and keep surfaces in your home clean. You condition should improve over the next 5 days with the care discussed. If you experience worsening or prolonged symptoms, this
may be due to an additional illness or worsening illness, and you should return to the ER. You should return if you experience increased fevers, increased or change in color of sputum, changes in vision such as blurry vision, neck stiffness, confusion, or other concerns. You should follow up with your primary care physician in the next week for further evaluation. Thank you for trusting us with your care.

THROAT PAIN, VIRAL (.DCTHROAT)

You were seen today for throat pain, and treated with _. Viral illnesses are treated with supportive care, including increasing your fluid intake, over the counter fever and pain reducers, and rest. To limit the spread of your symptoms to others you should wash your hands frequently and keep surfaces in your home clean. You condition should improve over the next 5 days with the care discussed. If you experience worsening or prolonged symptoms, this may be due to an additional illness or worsening illness, and you should return to the ER. Please follow up with your primary doctor in 1 week. If you do not have a primary care doctor, please see below to schedule an appointment. If your pain increases, have problems talking or breathing, experience swelling of your throat, or have any other concerns, please return to the ER for further evaluation. Thank you for trusting us with your care.
CONCUSSION (.DCCONCUSSION)

You were seen today for __. You should not participate in any activities that increase the chance for a repeat concussion. To help you return to work/play, and decrease your post-concussive symptoms, follow these instructions; Be sure to get plenty of sleep. Take daytime rests or naps when fatigued. You should alter your work schedule to allow for frequent breaks. You may experience symptoms such as headaches, dizziness, confusion, and delayed thought processes. These symptoms will be made worse with increasing exertion. Decrease use of screens including televisions, computers, and phones. Try to rest in dark conditions with minimal stimulation. You should return to the ER if you experience worsening confusion, worsening headache, weakness or numbness, or other concerning symptoms. You should follow up with your primary care doctor within the next 3-4 days. Call for an appointment today.

For more information regarding concussions and returning to daily activities; http://www.cdc.gov/headsup/  
Thank you for trusting us with your care

CHEST PAIN, UNKNOWN CAUSE (.DCCXPUNK)

Today, you were seen in the ER for your chest pain. Your EKG, chest x-ray, and bloodwork didn't show any explanation for your symptoms. The exact cause for your pain is unclear. Today, your evaluation was reassuring, and
your chest pain does not appear to be an emergency at this time. However, things can change, and you should see your doctor or return to the ER if you have:
- worsening of your chest pain
- difficulty breathing
- fainting
- unusual sweating with your pain
- any other new or concerning symptoms.

Please follow-up with your primary doctor within 1-2 days for a recheck. Thank you for trusting us with your care.

CHEST PAIN, LOW HEART SCORE (.DCCXPHEART)

Today, you were seen in the ER for your chest pain. Your EKG, chest x-ray, and bloodwork didn't show any explanation for your symptoms. The exact cause for your pain is unclear. As discussed, despite your reassuring workup thus far, it is still not yet possible to rule-out your heart as the cause of these symptoms. You need to follow-up with a cardiologist on an urgent basis, within 2-5 days. If this is unable to occur, you should return to the emergency department for re-evaluation. Things can change, and you should see your doctor or return to the ER immediately if you have:
- worsening of your chest pain
- difficulty breathing
- fainting
- unusual sweating with your pain
- any other new or concerning symptoms.

Thank you for trusting us with your care.

CHEST PAIN, MSK (.DCCXPMSK)

You were seen today for chest pain. You were __. Your labs, imaging, and evaluation were reassuring and not indicative of an emergency at this time. Chest pain that is not associated with abnormal labs, imaging, or evaluation may be due to muscle strain or inflammation of the chest wall, even if you are unable to recall a specific cause. You should return to the ER if you experience increasing chest pain, palpitations, shortness of breath, or any other concerning symptoms. You should follow up with your primary care doctor __ and a cardiologist to further evaluate your need for additional diagnostic studies or treatment.

Thank you for trusting us with your care.
PALPITATIONS (.DCPALP)

Today, you were seen in the ER for your palpitations. Your EKG, blood work, and imaging were reassuring, however we were unable to find a specific cause of your symptoms. A change in your symptoms may indicate an emergency; you should return to the ER if you experience chest pain, shortness of breath, worsening or continuation of your palpitations, or any other concerns. Please follow up with your primary care physician in the next 2-4 days for re-evaluation. If you have frequent palpitations, talk to your doctor about using a cardiac monitor or other devices to help monitor your heart rate and rhythm.

Thank you for trusting us with your care.

PNEUMONIA (.DCPNA)

You were seen today for _ . Your symptoms appear to be due to a bacterial infection in your lung, called pneumonia. Your evaluation was reassuring, and you were placed on an antibiotic to treat your infection. You condition should improve over the next 7 days with the care discussed. If you experience worsening or prolonged symptoms, this may be due to an additional illness or worsening illness, and you should return to the ER. You should return if you experience increased fevers, increased or change in color of sputum, changes in vision such as blurry vision, neck stiffness, confusion, passing out or nearly passing out, worsening shortness of breath,
Today, you were seen in the ER for your body pains due to a sickle cell pain crisis. Your exam and bloodwork showed no signs of infection or other major problems at this time.

Please follow-up with your primary doctor or hematologist within the next 2-3 days for a recheck and further recommendations on management of your sickle cell disease. In the meantime, you may use the prescribed pain medication. Please be cautious with the use of these medications, as they may result in drowsiness; please don't use these medications before driving, swimming, or any other potentially dangerous activities.

Please return to the ER if you have:
- pain that is not controlled with medications
- weakness of any part of your body
- fever of 100.4 or higher
- difficulty breathing or chest pain
- any other new or concerning symptoms

Thank you for trusting us with your care.
HEADACHE, MIGRAINE (.DCMIGRAINE)

You were seen today for headaches. You were treated with medications and fluids to help resolve your pain. Your evaluation was not concerning for an emergency at this time, however changes in your headache or other symptoms may be concerning and signal a medical emergency for which you need to return for further evaluation. You should return to the ER if you experience confusion, worsening headache, weakness or numbness, any changes in vision such as blurring or loss of vision, fevers, pain with neck movement, or other concerning symptoms. To help your symptoms resolve, be sure to get plenty of sleep and hydrate well. Decrease use of screens including televisions, computers, and phones. Try to rest in dark conditions with minimal stimulation. You should follow up with your primary care doctor within the next week. Call for an appointment today. Thank you for trusting us with your care.

SYNCOPE/NEAR SYNCOPE (.DCSYNCOPE)

You were seen today for an episode _. Your labs, imaging, and evaluation were not indicative of an emergency at this time. This episode may be due to many factors, including poor food or fluid intake, exertion, heart problems not present at the time of exam, or other causes. Because of this, you need to follow up with your primary care physician for further evaluation. At any time, you should return to the ER if you experience chest pain, palpitations,
shortness of breath, additional similar episodes, or any other concerning symptoms. You should follow up with your primary care doctor to further evaluate your need for additional diagnostic studies or treatment. Thank you for trusting us with your care.

HYPERTENSION (.DCHTN)

Today, you were seen in the ER for your high blood pressure. Your exam showed no signs of consequences of your blood pressure being elevated. You should continue to take your blood pressure medications as prescribed. Please return to the ER if you have: new weakness, difficulty speaking, chest pain, difficulty breathing, loss of vision, any other new or concerning symptoms. Otherwise, please follow-up with your primary doctor within the next week. Thank you for trusting us with your care.
KIDNEY STONE (.DCKIDNEYSTONE)

You were seen today for abdominal pain, and diagnosed with a kidney stone. Your labs, imaging and evaluation were reassuring, and did not show concerns for infection, however any time you have a kidney stone you should be aware of any signs of infection, which can be dangerous with a kidney stone. You should immediately return to the ER if you experience fever greater than 102 degrees, worsening abdominal pain, nausea or vomiting, or any other concerning symptoms. You should follow up with your primary care doctor in the next week, and urology if your symptoms persist.
Thank you for trusting us with your care.

UTI, TREATED (.DCUTI)

You were seen in the ER for _. You were diagnosed with a urinary tract infection, and started on antibiotics, which you should continue as prescribed. Your physical exam and laboratory findings were reassuring. Please follow up with your primary care doctor in the next 2-4 days. Please return to the ER if you experience increasing abdominal pain, fever, shortness of breath, or any new, concerning or worsening symptoms.
Thank you for trusting us with your care.
FIRST TRIMESTER VAGINAL BLEED (DCPREGBLEED)

You were seen in the ER for vaginal bleeding during pregnancy. Your evaluation and imaging_. First trimester bleeding is common, however, as discussed it may represent an increased risk for the pregnancy. You should return to the ER if you have worsening bleeding, abdominal pain, fever, or other concerning symptoms. You should follow up with your OBGYN physician in the next 3-5 days for further evaluation. Thank you for trusting us with your care.

STD, TREATED (DCSTD)

You were seen in the ER for _. You were presumptively treated for gonorrhea and chlamydia, because it takes 3-5 days for cultures to return. You should not have any sexual contact until 1 week after resolution of symptoms. Your sexual partners must also be treated for 1 week prior to sexual contact. You should use a barrier method of protection during intercourse to reduce the chance of infection. Chronic or multiple STD infections may result in infertility. You should return to the ER if your symptoms worsen, you have a fever, worsening abdominal pain, or other concerning symptoms. You should follow up with your primary care doctor, or use the information below to find a primary care doctor. STDs are frequently spread together, and it is important to have an HIV test either with your primary care doctor or a free clinic. Contact the Department of Health, or go online for a listing
You were seen today for __. You were treated and rehydrated. You should continue to take in oral fluids, such as water and electrolyte drinks. You should follow up with your primary care doctor within the next week for further evaluation if your symptoms do not fully resolve. You should return to the ER if your diarrhea worsens, you have blood in your stools, experience fever greater than 102 degrees, or other worrying symptoms. Thank you for trusting us with your care.
SHINGLES WITH ACYCLOVIR AND GABAPENTIN (.DCSHINGLES)

You were seen in the ER for a shingles rash. You were prescribed an antiviral, which you should take as directed. Use the Gabapentin if you develop numbness or pain in the area as directed. See your primary doctor within 1 week for follow up if pain is not relieved. Keep your rash covered if it is in an exposed area. You may be contagious, and it is very important to prevent the spread to pregnant women and those who have never had the chicken pox, or an immunocompromised. Come back to the ER if you develop headaches, vomiting, neck stiffness, changes in vision, or fevers.

Thank you for trusting us with your care.

ANKLE SPRAIN (.DCANKLESPRAIN)

You were seen in the ER for ankle pain and diagnosed with an ankle sprain. Your physical exam and radiology findings were reassuring. Please follow up with your primary care doctor in the next week. You may need orthopedic or physical therapy follow up as well, which you should discuss with your primary care physician. Please return to ER if you develop weakness in the affected leg, pain or swelling increases, or other concerning or worsening symptoms.

Thank you for trusting us with your care.
**INCISION & DRAINAGE WITH PACKING (.DCIDPACKED)**

You were seen today for a painful mass and diagnosed with an abscess. Your abscess was drained, and the wound was packed to help aid with healing. You need to return in 2 days for re-evaluation and for removal of the dressing. Keep the wound clean, dry, and covered. Try to keep the current dressing in place. You should return to the ER sooner if you experience any of the following:

- Fever greater than 100.4°F (38°C)
- Wound reopens or bleeds
- Increasing pain in the wound
- Signs of infection, such as warmth, redness, swelling, or foul-smelling drainage from the wound
- Persistent numbness or weakness in the affected area

Thank you for trusting us with your care.

**INCISION & DRAINAGE NO PACKING (.DCIDHOME)**

You were seen today for a painful mass and diagnosed with an abscess. Your abscess was drained, and the wound was left open to aid with drainage and healing. Keep the wound clean, dry, and covered. Try to keep the current
dressing in place until it is soiled, or for the next 8 hours. You should return to the ER if you experience any of the following:
   - Fever greater than 100.4°F (38°C)
   - Wound reopens or bleeds
   - Increasing pain in the wound
   - Signs of infection, such as warmth, redness, swelling, or foul-smelling drainage from the wound
   - Persistent numbness or weakness in the affected area
Thank you for trusting us with your care.

SUTURE CARE (.DCSUTURE)

Your wound was cleaned thoroughly, any foreign debris was removed, and the wound was closed with _. Keep the wound clean, dry, and covered. Use water and mild soap to clean every day. You should have the sutures or staples removed in _ days by your primary care doctor, or return to the ER for suture removal. You should return to the ER sooner if you experience any of the following:
   - Fever greater than 100.4°F (38°C)
   - Wound reopens or bleeds
   - Increasing pain in the wound
   - Signs of infection, such as warmth, redness, swelling, or foul-smelling drainage from the wound
   - Persistent numbness or weakness in the affected area
Thank you for trusting us with your care.

SUTURE REMOVAL

You were seen in the ER for suture removal. Your physical exam was reassuring, and we removed the sutures from your wound, which is healing well. Please follow up with your primary care doctor as needed. You should return to the ER sooner if you experience any of the following:

- Fever greater than 100.4°F (38°C)
- Wound reopens or bleeds
- Increasing pain in the wound
- Signs of infection, such as warmth, redness, swelling, or foul-smelling drainage from the wound
- Persistent numbness or weakness in the affected area

Thank you for trusting us with your care.
MOTOR VEHICLE COLLISION, NO INJURY (.DCMVC)

You were seen today after a motor vehicle collision. Your evaluation, including imaging, was not concerning for an emergency or fracture at this time, however changes in your symptoms may be concerning, and signal a medical emergency for which you need to return for further evaluation. You may experience some worsening soreness over the next two days, which is normal after a collision. Continue to take pain medication as directed, ice, and rest. You should return to the ER if you experience confusion, worsening headache, weakness or numbness, any changes in vision such as blurring or loss of vision, pain with neck movement, or other concerning symptoms. You should follow up with your primary care doctor within the next week. Call for an appointment today.
Thank you for trusting us with your care.

DEPRESSIVE SYMPTOMS (.DCDEPRESSION)

You were seen for depressive symptoms. Your evaluation was _. As discussed today, your symptoms require follow up within the next 1-2 days, and it is important to know how to keep safe from harming yourself or others. If you notice changes in your eating or sleeping habits, feeling unwilling or unable to communicate with others, discouragement or sadness, reckless behavior or withdrawal from people or activities, it is important to immediately call 911 or return to the ER. If you have any
concerns about you or a loved one showing signs for self-harm, immediately call 911. You should abstain from alcohol or other intoxicants before further evaluation by a medical professional. Call the toll free National Suicide Prevention Hotlines if you ever feel the need to talk about your feelings, thoughts, or safety.

National Suicide Prevention Lifeline: 1-800-273-TALK (8255)
National Hope Line Network: 1-800-SUICIDE (784-2433)

Your safety is our number one priority. If you ever feel unsafe, fearful, or have any other concerns please immediately call 911 or return to any emergency department.

Thank you for trusting us with your care.

ALCOHOL ABUSE (.DCETOH)

You were seen in the ER for alcohol abuse. You need to stop drinking alcohol or drink in moderation, as this is dangerous to your health and may lead to future health problems. You should seek out a local alcoholic anonymous meeting group to help stop using alcohol. You should return to the ER with any seizure activity, uncontrolled pain, fevers/chills, suicidal thoughts or symptoms concerning to you. You should follow up with your primary care doctor, or use the below information to find a primary care doctor, to help manage your health.
K2/SPICE USE (.DCK2)

You were seen in the ER after ingesting synthetic marijuana. Synthetic marijuana contains many unknown and dangerous chemicals, and is not a replacement for marijuana. You should stop using synthetic marijuana as it may cause severe bodily harm, including death, and may lead to future health problems. You should return to the ER with any seizure activity, uncontrolled pain, fevers/chills, suicidal thoughts or symptoms concerning to you. You should follow up with your primary care doctor, or use the below information to find a primary care doctor to help manage your health. Thank you for trusting us with your care.
PCP USE (.DCPCP)

You were seen in the ER after ingesting PCP. PCP may contain many unknown and dangerous chemicals, and you should stop using PCP as it may cause severe bodily harm, including death, and may lead to future health problems. You should return to the ER with any seizure activity, uncontrolled pain, fevers/chills, suicidal thoughts or symptoms concerning to you. You should follow up with your primary care doctor, or use the below information to find a primary care doctor to help manage your health. Thank you for trusting us with your care.

HEROIN USE (.DCHEROIN)

You were seen today after use of heroin. Heroin can cause respiratory depression and even death, and can expose you to infectious diseases including HIV and Hepatitis C. The strength of street drugs is constantly changing, and even using smaller doses in the future can cause death. Heroin and opioids a leading killer in the US. Use the below information for help quitting. Please return to the ER for trouble breathing, confusion, fevers/chills, or other concerns.

Thank you for trusting us with your care.
You were given a prescription for an opioid pain medication, please take as directed, and do not operate machinery or drive while using this medication. Using too much or mixing with alcohol or other sedatives can cause you to stop breathing and potentially death.

You were seen today for _. You are requesting to leave against medical advice, before we can complete our necessary evaluation to determine if you are experiencing a medical emergency. Leaving against medical advice may delay treatment for emergent problems and may worsen an illness or even result in death. You may return to this ER or any emergency department for further evaluation at any time. Please return for further evaluation, especially if you experience any of the following; fever greater than 102F, chest pain, shortness of breath, blood in your stools or urine, confusion, weakness/numbness, or any other concerning symptoms. You should follow up with your primary care doctor as soon as possible to continue your evaluation.
Your child was seen today for headaches. They were treated with medications and fluids to help resolve the pain. Your child's evaluation was not concerning for an emergency at this time, however changes in their headache or other symptoms may be concerning and signal a medical emergency for which you need to return for further evaluation. Your child should return to the ER if they experience confusion, worsening headache, weakness or numbness, any changes in vision such as blurring or loss of vision, fevers, pain with neck movement, or other concerning symptoms. 

To help their symptoms resolve, be sure to get plenty of sleep and hydrate well. Decrease use of screens including televisions, computers, and phones. Try to rest in dark conditions with minimal stimulation. You should follow up with your child's pediatrician within the next week. Call for an appointment today.

Thank you for trusting us with your child's care.
OTITIS MEDIA, ABX WAIT (.DCPedomABX)

Your child was seen today for _ and diagnosed with an ear infection. Most ear infections are viral, however a prolonged ear infection may be due to a bacterial infection. You were given a prescription for an antibiotic, which should be filled only if your child fails to improve with supportive care as discussed. Your child should return to the ER if they experience worsening fevers, worsening ear pain or ear discharge, nausea or vomiting, inability to tolerate oral fluids, or any other concerning symptoms. You should follow up with your pediatrician for re-evaluation in 2-4 days.

Thank you for trusting us with your child's care

VIRAL EXANTHEM (.DCPedarash)

Your child was seen today for a rash. Your child's evaluation _ . Most rashes due to a viral infection is self-resolving, and will not leave any permanent lesions. Your child should return to the ER if they experience fever greater than 102 degrees, pain associated with their rash, spreading redness or swelling from the rash, headaches or vomiting, increased irritability, inability to tolerate oral fluids, diarrhea, or any other concerning symptoms. You should follow up with your pediatrician _ .

Thank you for trusting us with your child's care
ABDOMINAL PAIN, FILL-IN (.DCPEDABDPAINFILL)

Your child was seen today for abdominal pain. Your child’s evaluation _. Your child should return to the ER if they experience fever greater than 102 degrees, worsening abdominal pain, blood in stools, worsening nausea or vomiting, inability to tolerate oral fluids, or any other concerning symptoms. You should follow up with your pediatrician _. Thank you for trusting us with your child’s care

ABDOMINAL PAIN, UNKNOWN CAUSE (.DCPEDABDUNK)

Today, your child was seen in the ER for abdominal pain. Although your child’s evaluation did not show a specific cause for their pain, it not seem to be due to a serious cause at this time. However, things can change, you’re your child should see their pediatrician or return to the ER if they have vomiting that prevents them from tolerating oral fluids, worsening of pain, fever of 100.5 or higher, any other new or concerning symptoms. Otherwise, please see their pediatrician in 2 days for re-evaluation. Thank you for trusting us with your child's care
COLD/VIRAL ILLNESS (.DCPEDCOLD)

Your child was seen today for _. Their symptoms appear to be due to a viral illness, and their evaluation was reassuring. Viral illnesses are treated with supportive care, including increasing fluid intake, over the counter fever and pain reducers, and rest. To limit the spread of your child’s symptoms to others you should wash your hands and your child’s hands frequently and keep surfaces in your home clean. Their condition should improve over the next 5 days with the care discussed. If you experience worsening or prolonged symptoms, this may be due to an additional illness or worsening illness, and your child should return to the ER. You should return if your child experiences increased fevers, increased or change in color of sputum, changes in vision such as blurry vision, neck stiffness, confusion, inability to tolerate oral fluids, or other concerns. You should follow up with your pediatrician in 2-3 days for further evaluation.

Thank you for trusting us with your child’s care

THROAT PAIN – VIRAL (.DCPEDTHROAT_VIRAL)

Your child was seen today for throat pain and _. Their symptoms appear to be due to a viral illness, and their evaluation was reassuring. Viral illnesses are treated with supportive care, including increasing fluid intake, over the counter fever and pain reducers, and rest. To limit the spread of your child’s symptoms to others you should wash your hands and your child’s hands
frequently and keep surfaces in your home clean. Their condition should improve over the next 5 days with the care discussed. If you experience worsening or prolonged symptoms, this may be due to an additional illness or worsening illness, and your child should return to the ER. You should return if your child experiences increased fevers, increased or change in color of sputum, changes in vision such as blurry vision, neck stiffness, confusion, inability to tolerate oral fluids, or other concerns. You should follow up with your pediatrician in 2-3 days for further evaluation.

Thank you for trusting us with your child’s care.

THROAT PAIN — STREP THROAT (.DCPEDTHROAT_STREP)

Your child was seen today for throat pain and _. Their symptoms appear to be due to strep throat, a bacterial infection. They were treated with antibiotics. If you were given a prescription, you should continue the antibiotics until completed. To limit the spread of your child’s symptoms to others you should wash your hands and your child’s hands frequently and keep surfaces in your home clean. Their condition should improve over the next 5 days with the care discussed. If you experience worsening or prolonged symptoms, this may be due to an additional illness or worsening illness, and your child should return to the ER. You should return if your child experiences increased fevers, increased or change in color of sputum, changes in vision such as blurry vision, neck stiffness, confusion, inability
to tolerate oral fluids, or other concerns. You should follow up with your pediatrician in 2-3 days for further evaluation.

Thank you for trusting us with your child's care

CHEST PAIN — UNKNOWN CAUSE (.DCPEDCHEST)

Today, you were seen in the ER for your chest pain. Your EKG, chest x-ray, and bloodwork didn't show any explanation for your symptoms. The exact cause for your pain is unclear. Today, your evaluation was reassuring, and your chest pain does not appear to be an emergency at this time. However, things can change, and you should see your doctor or return to the ER if you have worsening of your chest pain, difficulty breathing, fainting, unusual sweating with your pain, any other new or concerning symptoms. Please follow-up with your primary doctor within 1-2 days for a recheck.

Thank you for trusting us with your child's care
PALPITATIONS (.DCPEDPALP)

Today, your child was seen in the ER for palpitations or a rapid heart rate. Their EKG and evaluation was reassuring, but did not find a specific cause for their symptoms. A change in their symptoms may indicate an emergency; you should return to the ER if they experience chest pain, shortness of breath, worsening or continuation of their palpitations, or any other concerns. Please follow up with your pediatrician in the next 2-4 days for re-evaluation. If they continue to have frequent palpitations, talk to your pediatrician about using a cardiac monitor or other devices to help monitor their heart rate and rhythm.

Thank you for trusting us with your child’s care.

ASTHMA EXACERBATION (.DCPEDASTHMA)

Your child was seen today for an asthma exacerbation. After treatment with oxygen and medications, their breathing improved. You should continue to use the albuterol inhaler as instructed, and prescribed medications as directed. It is important to use the albuterol inhaler appropriately. If your child experiences a worsening of their breathing, shortness of breath, swelling of their throat, trouble breathing, chest pain, or other concerning symptoms, you should return to the ER. During Heat Advisories or when air quality is poor, it is important to be more aware of asthma symptoms and use your child's asthma medications as needed. You should also keep track
of possible triggers for your asthma to help prevent future attacks. Please follow up with their pediatrician in the next 3-5 days to evaluate your child's current asthma medications and any need for changes.

Thank you for trusting us with your child's care

HYPERGLYCEMIA, DIABETIC (.DCPEDHYPERGLYCEMIA)

Your child was seen today and found to have elevated blood sugar. They were treated with medication to lower their blood sugar to a safe level. It is important to keep your child's glucose in a safe level to prevent future damage to their body. You should check your child's blood sugar as discussed, and follow up with your pediatrician or endocrinology clinic for further management. Your child should return to the ER if they have fevers, chills, altered mental status or confusion, abdominal pain, vomiting, or increased urinary frequency or ketones in their urine.

Thank you for trusting us with your child's care
SICKLE CELL PAIN (.DCPEDSICKLE)

Today, your child was seen for a sickle cell pain crisis. They were treated with pain medications and fluids, and their labs were reassuring. Their evaluation was reassuring and did not show signs of emergent effects from their sickle cell disease. Please follow-up with your child's primary doctor or hematologist within the next 2-3 days for a recheck and further recommendations on management of your sickle cell disease. In the meantime, you may use the prescribed pain medication. Please be cautious with the use of these medications, as they may result in drowsiness; please don't use these medications before driving, swimming, or any other potentially dangerous activities. Changes in their symptoms may indicate a need to return.

Please return to the ER if your child has:
- pain that is not controlled with medications
- weakness of any part of their body
- fever of 100.4 or higher
- difficulty breathing or chest pain
- any other new or concerning symptoms

Thank you for trusting us with your child's care

SEIZURE, KNOWN DISORDER (.DCPEDSEIZURE)

Your child was seen today after a seizure. Their labs, imaging, and evaluation
was reassuring. If your child is currently on an anti-epileptic medication, it is important to continue taking them. You should follow up with your child’s neurologist within 3 days for re-evaluation and to discuss any changes or additions to your current medications. You should return to an Emergency Room or call 911 if your child has additional seizures, trouble walking, speaking, numbness, weakness, fevers, chills, or any other concerns.

Thank you for trusting us with your child’s care
During my residency, each resident was required to do a month rotation as the “Teaching Resident”, which consisted of calling patients back with positive results or radiology over-reads as well as teaching medical students and junior residents. A large amount of our time was spent documenting phone calls and leaving voicemails. These macros can also be used when performing call backs or follow-up on patients and provide a more professional appearing chart when documenting important conversations, such as recommendations to return to the ER, or communicating incidental findings that require follow-up imaging.

**ATTEMPTED TO REACH (.TRCALL)**

Attempted to reach the patient at their listed phone number _
VOICEMAIL (.TRMESSAGE)

Discrete voicemail left at the patient’s listed phone number to call back regarding recent visit. Will attempt to reach for a total of three calls and then send letter to documented address if unable to reach by phone.

INCIDENTAL FINDING (.TRINCIDENTAL)

Attempted to reach the patient at their listed phone number to discuss incidental finding on _, and to recommend _ follow-up imaging within _. Provided patient with information, patient voiced understanding, and I answered any additional questions.

POSITIVE STD (.TRSTD)

Contacted patient at the listed phone number to discuss recent gonorrhea
and chlamydia testing. Discussed positive _, as well as the presumptive treatment given during recent visit. Recommended follow-up in 3 months for repeat testing as well as HIV testing per CDC recommendations. To minimize transmission and reinfection, instructed to abstain from sexual intercourse until they and their partner(s) have been adequately treated. Answered additional questions and directed patient to Department of Health website for STD testing clinics.
Special thanks to Dr. David Talan and Karen Clouse, JD for graciously allowing me to interview them regarding physician documentation. Thanks to T system inc and Eric Feid for providing a history of T sheets and permission to use graphics of the T sheets and storage system.

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