The Chargemaster Coordinator’s HANDBOOK

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On the CD-ROM that accompanies this book, you will find this additional material:

Bonus Chapters:
  Chapter 15 – Personal Skills: Research, Team Interaction, and Teaching
  Chapter 16 – Conducting Chargemaster Reviews
  Chapter 17 – Chargemaster Technology and Analytical Techniques
  Chargemaster General Review Checklist
  Charge-capture Pre-assessment Checklist
  Charge-capture Assessment Checklist
  Chargemaster Job Description
  Terminology and Acronyms
About the Author

Duane Abbey is president of Abbey & Abbey, Consultants, Inc., in Ames, IA. He provides specialized consultation for revenue enhancement and compliance reviews for physicians, clinics, hospitals, and hospital systems, and litigation support services to legal counsel for healthcare providers.
Preface

A hospital’s chargemaster is a vital and highly technical file embedded in the hospital’s billing system. This book is intended for those that care for and feed the chargemaster. Certainly, the chargemaster is not a living being, but sometimes making changes in the chargemaster can certainly invoke unanticipated reactions within the overall reimbursement cycle, so that the chargemaster can seem like a living organism.

If you are a chargemaster coordinator, want to be a chargemaster coordinator, or are about to be a chargemaster coordinator (whether you want to be or not!), then this book is for you. The activities and sensitive pressure points for chargemaster personnel are discussed. Simple case studies are provided to assist in fully understanding the many concepts that are presented. Hospitals and hospital systems come in all sizes and shapes, so the scope and level of activities for chargemaster personnel vary significantly. Thus, you will need to read and study this book within the framework of your specific context.

If you are in a small hospital, being a chargemaster coordinator is probably a part-time job. If you are in a large hospital, there will probably be several people involved in taking care of the chargemaster. Whether you are in a large or small hospital, the tasks, duties, knowledge, abilities, and personal characteristics of a chargemaster coordinator are basically the same.

This is not a chargemaster book. This handbook is intended to be a specialized supplement for personnel working with the chargemaster. Various chargemaster topics are discussed as examples only. Different approaches to addressing coding, billing, and compliance issues are discussed to illustrate the challenges faced by chargemaster coordinators. The specific approach that you decide to take to address a given challenge is very much up to you.

To all of you who have taken on the challenge or are about to take on the challenge of the chargemaster, enjoy the opportunity! Make it fun!
Chapter 1  What Is the Chargemaster?

Introduction

In simple terms, the chargemaster is a computer file that lists all of the charges a hospital uses in billing for services rendered, items supplied, or both. The word chargemaster is generic, and can be used interchangeably with terms like charge description master (CDM) or service description master. Throughout this book, we will use the word chargemaster.

Customized chargemasters are created based on different philosophies and for various computer systems at almost every hospital across the country; thus, chargemasters from five different hospitals can yield significantly different files. There are, however, some commonalities among all chargemasters. For instance, certain data must be present in any given chargemaster in order to accommodate the claims development process.

There are four elements common to the line-items in any chargemaster:

- The description
- The Current Procedural Terminology (CPT)/Healthcare Common Procedure Coding System (HCPCS) code with modifier(s)
In this book, we will include a fifth field—effective date entry. The way in which the effective date is implemented may vary and may include additional date information for archiving the chargemaster. Note that the use of CPT/HCPCS codes is optional. Some line-items in the chargemaster will have such codes, other line-items will not. Also, both CPT and HCPCS codes may have modifiers that can also be placed in the chargemaster as appropriate. The decision as to when to place CPT/HCPCS codes and their associated modifiers is a decision typically made by a chargemaster coordinator. Likewise, chargemaster coordinators choose specific revenue codes (RCs), the description, and the charges. Thus, even at this reduced level, the chargemaster coordinator has a major influence on how hospitals bill—and are paid for—their services.

You can view the chargemaster in two ways: as a static file or as a dynamic lynchpin in the revenue cycle. We will first discuss the chargemaster as a static file, or a database. We will then look at the chargemaster as a dynamic part of the revenue cycle. As we address these two perspectives, we will address the activities and issues that chargemaster coordinators must pay attention to.

### The chargemaster as a database

The specific form and layout of the chargemaster depend on the design of the billing system. For a relatively simple billing system, such as one used at a small, rural hospital, the chargemaster will be a flat database file. Each line-item will be a record containing a number of fields.

For large, complex billing systems, the chargemaster form and format may be more complex and can even be considered a relational database. For example, the chargemaster may consist of two linked files. One file may contain information such as the line-item description, revenue code, and CPT or HCPCS code. Another file may contain all of the charges and other associated information. These files are then linked electronically so that together they can be used in the billing and claim-generation process.

One of the first jobs for those aspiring to the chargemaster-coordinator ranks is to learn exactly how the chargemaster has been designed for the specific billing system being used. Pay special attention to all of the features and available parameters within the chargemaster itself, because you may need to use them at some point. For example, there may be fields available for relative values or cost information that can assist in developing charges.
Although the chargemaster programming can vary depending on the hospital billing system, we will generally use the flat database model for our discussions. Thus, each line-item is a record with individual fields. The number of fields can be quite large depending on how the billing system has been programmed and which chargemaster features are available. For instance, a chargemaster may be programmed to allow multiple revenue codes per line-item. Different revenue codes may be required for different third-party payers. Thus, the billing system may be able to pull different revenue codes from the chargemaster based on patient class or specific third-party payer.

Figure 1.1 provides an example of the basic fields that will be in almost any chargemaster.

<table>
<thead>
<tr>
<th>CDM #</th>
<th>Description</th>
<th>CPT/HCPCS</th>
<th>Revenue Code</th>
<th>Charge</th>
<th>Effective Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>006450003</td>
<td>Level 3 ED Assessment</td>
<td>99283-25</td>
<td>0450</td>
<td>$260.00</td>
<td>2008-07-01</td>
</tr>
<tr>
<td>006450103</td>
<td>Level 3 Clinic Assess ED—New</td>
<td>99203-25</td>
<td>0456</td>
<td>$160.00</td>
<td>2008-07-01</td>
</tr>
</tbody>
</table>

The chargemaster number is a sequencing number that may also contain accounting general ledger (G/L) information or other reference information. The numbering process is generally categorized by department, service area, or specific types of services or items.

The description column is typically limited to 25 characters. This can pose a challenge, as great care must be taken so that anyone—such as an auditor—can understand the description.

A given line-item may or may not have a CPT, HCPCS, or any associated modifiers. If the CPT/HCPCS code is present, we say that the code is statically placed in the chargemaster. If the CPT/HCPCS code is not present but must still appear on the claim, then the CPT/HCPCS code is developed dynamically outside the chargemaster itself.

The revenue codes (RCs) are made up of a standard code set maintained by the National Uniform Billing Committee (www.nubc.org). This code set has developed over the years as the need for certain revenue codes became apparent. As a result, this is not a highly organized code set and the descriptions
are often rather cryptic. Additionally, third-party payers may mandate the use or nonuse of certain revenue codes.

As the name chargemaster implies, each line-item contains a charge for the given item provided or service rendered. Because hospital charging practices have come under close scrutiny in the past several years, chargemaster coordinators spend substantial time analyzing, assessing, and formulating proper ways to charge for the various items and services represented.

Most chargemasters will have a field to indicate when the given line-item was last updated, that is, an effective date for the current line-item. The most typical use of this date is for updating the charge, but it could also represent changes to other fields in the line-item.

**The chargemaster as a dynamic part of the revenue cycle**

Not only is the chargemaster a complex file, but it is used as a dynamic part of the revenue and reimbursement cycles. Because the chargemaster generates an itemized statement and a claim form, you may see the term reimbursement cycle as a very large subset of the overall revenue cycle.

**Figure 1.2** shows the general flow for the provision of services and the associated coding, billing, and reimbursement. This process flow is the revenue cycle. Because we are mainly interested in cases for which a claim is developed, filed, and then paid, we will also use the phrase reimbursement cycle.
What Is the Chargemaster?

Throughout this handbook, we will discuss a number of issues within the reimbursement cycle and provide a more detailed discussion in Chapter 4. For now, simply note that the chargemaster is right in the middle of this cycle.

The chargemaster is used in different ways relative to generating the itemized statement and the associated claim. One of the challenges for a chargemaster coordinator is to understand the different flow patterns for encountering patients, providing services, documenting the services, charging, and eventually generating the claim. Of the many different flow processes, we’ll look at two examples.

**Case study 1.1: Diagnostic radiology** – A typical flow for diagnostic radiology services is that an order is made by a physician or qualified practitioner and the test or tests are entered into the billing system via order entry. Services are provided and documented, after which the order entry drives the charge entry through the chargemaster. Typically, the radiology CPT/HCPCS codes are statically embedded in the
chargemaster. By entering the correct charge through order entry, the proper charges and codes are developed.

A question that arises from Case study 1.1 is how the proper modifiers get onto the claim if the codes are driven by order entry through the chargemaster. This is both a process question as well as a compliance question. Modifiers should be used only when necessary. The person making the decision to use a modifier must be in a position to attest to the fact that the modifier should be used, and there must be a process for getting the modifier onto the claim form. In some cases, the modifier may be placed in the chargemaster, and in other cases, the modifier will be entered separately during charge entry or during the coding process.

**Case Study 1.2: Outpatient surgery** – A typical flow for outpatient surgery is that service area personnel input charges for the surgery, supplies, and associated pharmacy items. The chargemaster has only the charges for surgery but no CPT or HCPCS codes. The charges drive through onto the itemized statement. The actual coding is performed dynamically outside the chargemaster. The codes are transferred to the billing system, typically from a health information management abstracting system. The billing system then takes all the information to generate the claim.

So how does the billing system properly correlate the surgical charge or charges with the CPT/HCPCS codes developed by professional coding staff? The answer to this question can vary according to how the billing system has been programmed.

As you might notice, these two examples are overly simple. The actual processes used can be quite complex, even involving separate specialized computer systems that interface with the main billing system. For instance, your hospital may have a special surgery information system that lists all of the supplies, pharmacy items, and services provided. The actual charge entry process is performed through the surgery information system. These charges are then transmitted to the main billing system, through the chargemaster, and into the billing process. A moment’s reflection and you will realize that the charge listing in the surgery information system must be precisely correlated to the chargemaster in the main billing system.

Besides these front-end specialized systems, you may also have back-end systems that perform additional processing. These back-end systems can be stand-alone computer systems that interface with
the main system, or they may be separate modules or subsystems of the main billing system.

The coding interface to the chargemaster is one of the most difficult processing interfaces. Chargemaster coordinators spend a great deal of time determining how CPT/HCPCS codes along with modifiers are placed on the claim form. However, other interface issues such as charge capture and claim generation idiosyncrasies can also be significant.

As a chargemaster coordinator, you will spend a significant amount of time studying, mapping, flowcharting, and optimizing these overall flow patterns. Because these patterns are actual processes, all of the techniques for process improvement can be used. Although you may see many different phrases, such as business process management (BPM), business process reengineering (BPR), process improvement, supply chain management (SCM), and Six Sigma (6σ), all of these techniques are directed at improving both the efficiency and effectiveness of the process flow.

### Chargemaster complexities

If you obtain a printed copy of your hospital’s chargemaster, the first thing you will probably notice is that chargemasters are very big files. Even for a modest-sized hospital, the chargemaster may have tens of thousands of line-items. For a large, academic medical center, the chargemaster may have hundreds of thousands of line-items. Your printed copy will probably only contain the active line-items—those currently in use. Most likely there are thousands of line-items that are no longer in use and have been inactivated. Although the size of a chargemaster may be intimidating, there are good reasons for its size.

First, let us tackle the question of inactivated line-items. Why don’t we just eliminate them? Or perhaps just reuse the line-item by changing the description, revenue code, etc.? The simple fact is that once a line-item is put into the chargemaster, it will remain there in some form until a new chargemaster is created, which typically happens when there is a change in the hospital computer billing system. Actually, changing the billing system creates an opportunity to restructure the chargemaster. However, often the old chargemaster is simply transferred to the new system.

Although a given line-item may be turned off, we may need to know that for a certain period of time that line-item was used. We will also need to know exactly what data elements were in place for a specific period of time. This leads to the concept of archiving the chargemaster. For instance, if you update your chargemaster on a monthly basis by inputting all of the changes at a specific point in the month, then you will need to archive your chargemaster on a monthly basis.
Case study 1.3: Regenerating past claims – Sylvia, the chargemaster coordinator at the fictitious Apex Medical Center, has just had a meeting with several of the hospital’s attorneys. A formal, retrospective audit is to be made by Medicare auditors going back several years. There is significant concern that overpayment may have been made. The attorneys want the specific claims from four years ago regenerated.

In order for the billing system to faithfully regenerate these claims, the exact format of the chargemaster during the given time periods must be known. Of course, the Medicare auditors will have the information for the actual claims filed. Do you suppose the claims that are regenerated will be different from the original claims filed with Medicare? (Hint: Think about late charges that are in the hospital’s computer system, but that were not included on the original claims filed.) Thus, one of the reasons why chargemasters are so large is that we can’t really eliminate a given line-item once the line-item has been created and used.

Perhaps a more obvious reason why chargemasters are large is that hospitals provide many different kinds of services. There is a multitude of supply items used for patients. There are thousands of pharmaceuticals, intravenous solutions, and devices used in patient care. For a moment, set aside decisions about charging separately versus charging on a bundled basis and focus your thinking just on the emergency department (ED). How many different supply items are used in an ED? How many different pharmacy items are dispensed? How many different kinds of procedures are provided? What about special services or devices? Also, is the chargemaster used for both technical component charges, as well as the professional component charges for the physicians and practitioners?

Another complicating factor is that there may be other chargemasters in special systems at the hospital. For instance, the pharmacy department may have its own computer system with a chargemaster that must interface with the hospital billing system’s main chargemaster. This may be the case with other interfaced systems such as a surgery system, therapy system, and a variety of different provider-based clinic systems. Thus, in addition to the main chargemaster, you may also need to be concerned about these other systems and the computer interfaces to the hospital billing system. At the very least, these different chargemasters must be properly aligned and coordinated.

Let’s revisit the question posed after Case study 1.1. How do modifiers get onto the claim form in radiology when the coding is driven through the chargemaster by charge entry?
Case study 1.4: Radiology modifiers – A recent coding and billing audit at the Apex Medical Center resulted in questions about modifiers not appearing with the diagnostic radiology codes on the claims. The auditors are questioning why the “-LT” (left), “-RT” (right), and “-50” (bilateral) modifiers are not appearing on the claims. Additionally, there is concern as to why the various anatomical modifiers for the individual fingers and toes are not present. Sylvia has been called in to examine the situation and implement any necessary changes.

Although it is difficult to know what Sylvia will find and what solution will be implemented, there are two basic approaches to this type of situation:

- Establish an interactive method for radiology technicians to choose the left, right, or bilateral modifier at the time of order entry, such as using a pop-up box.

- Establish three different line-items in the chargemaster for radiology procedures that can be left, right, or bilateral and then have the radiology technicians choose the correct line-item.

Either of these approaches may produce further difficulties, and the possible use of modifiers for fingers and toes has not been addressed. This case study is a good introduction to the complexities encountered with the chargemaster.

The chargemaster as a part of the billing system

When a hospital billing system is developed, many decisions must be made, including the design of the chargemaster itself. In very simple terms, we discussed the chargemaster as a basic database. In some cases, when the billing system was designed, a decision may have been made to use a more advanced database model for the chargemaster. Additionally, there were probably numerous alternate features that could be used, depending on how the billing system was originally implemented. In other words, someone decided what parameters to turn on and what ones to turn off. These decisions can affect what the chargemaster looks like and how it can be used.

You must not only understand the chargemaster conceptually, but you must fully understand all of the capabilities that are available through your specific billing system relative to the chargemaster. Note that you may encounter capabilities that have not been turned on. Turning on such capabilities may prove to be extremely difficult, and you may be forced to use workarounds in order to meet a given need.
**Case study 1.5: Multiple revenue codes per line-item** – Sylvia has a line-item in the chargemaster for which different third-party payers require slightly different revenue codes. Currently, the chargemaster has been set up so that only one revenue code can be associated with a given line-item. She has read the billing system documentation for the chargemaster and it appears that the system has the capability to associate multiple revenue codes (up to five) based on a payer classification per line-item.

In Case study 1.5, do you think Sylvia will be able to convince the information systems personnel to turn on this feature? What kinds of problems could arise if this feature is turned on? If Sylvia has to work around this issue, she will have to use multiple line-items for the same service with specific line-items to be used only for given third-party payers. How will she train service-area personnel to pick the correct line-item when inputting charges? Or should this whole situation be handled outside of the chargemaster? For instance, a back-end system could reassign the revenue code based on the payer classification.

This is a very general illustration of the types of procedural challenges that you will face working with the chargemaster. Sometimes there are elegant ways to resolve challenges; other times you may have to use brute-force techniques. Just keep in mind that the overall goal is to generate a good, clean, complete, and accurate claim.

**Case study 1.6: Updating the chargemaster** – Sylvia has determined that the chargemaster is to be updated at the very end of each month. The changes are accumulated into a batch for the month-end updating along with archiving the chargemaster before the changes are made. She has run into a slight problem in that each change must be entered manually, as opposed a batch process in which all of the changes can be entered through a file.

Should there be a batch updating feature for the chargemaster? Is it possible that there is such a feature, but that it has never been turned on?

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**Alternative uses of the chargemaster**

Although the predominant view of the chargemaster may be its role for developing an itemized statement and associated claim, there are other ways in which the chargemaster can be used. For instance, some chargemasters have line-items with zero charges, often used for statistical tracking. Although use of statistical tracking line-items is a policy decision, many hospitals do allow such line-items.
Case study 1.7: Hot/cold packs – The Apex Medical Center has decided that CPT code 97010 for hot/cold packs is not to be billed and thus will not appear on the claim form. This policy decision was made primarily in lieu of Medicare requirements. However, the physical therapy and occupational therapy service departments still want to track the number of hot/cold packs being used. Thus, a line-item for hot/cold packs without a CPT code and without a charge has been placed in the chargemaster.

Expanding the statistical tracking process leads to the fact that revenue and usage reports are generated in connection with the chargemaster. Obviously, there can be no revenue generation or usage if there is not a line-item in the chargemaster to generate the information. Thus, the decision to create or not create certain line-items may affect the kind of information that can be accumulated relative to revenue and usage.

Another example of a slightly different use of the chargemaster occurs with capitated payment systems. With such systems, there is no claim, but the itemized statement is still generated and used internally to monitor the cost of care for patients under a capitated arrangement.

There are several other interfaces that can be affected by the chargemaster and its design. The cost-reporting process and cost accounting are two such areas. We will discuss these two topics in Chapter 11.

Summary

A hospital’s chargemaster is typically a very large file with embedded complexities. It can be viewed statically as a database embedded in the hospital’s billing system. It is also a dynamic lynchpin within the reimbursement cycle or revenue cycle. Chargemaster coordinators are technical personnel who design and maintain the chargemaster for efficient and effective flow within the overall coding, billing, and reimbursement cycles. There are many different process flows through the chargemaster based upon the different hospital departments and service areas, and many process-improvement techniques can be used to assist in both efficiency and effectiveness.